

4

Unit Synopses

UNIT SYNOPSES

This section provides synopses of the units offered in the 'Academic Programs' section of this Handbook.

The synopses are presented in alpha-numeric order according to their codes.

Unit Coding and Numbering

The unit code is of the format XXX999. The first two characters indicate the faculty or school administering the unit. The third character indicates the level of the course in which the unit is normally taught.

Unit Coding

AA Academy of the Arts
AR Architecture, Interior and Industrial Design
AT Arts
AY Accountancy
BN Built Environment and Engineering
BS Business
CE Civil Engineering
CH Chemistry
CN Construction Management
CO Communication
CP Cultural and Policy Studies
CU Curriculum and Professional Studies
EA Early Childhood
ED Education
EE Electrical and Electronic Systems Engineering
EF Economics and Finance
ES Geology
HL Health
HM Human Movement Studies
HU Humanities
IF Interfaculty Courses
IT Information Technology
JS Justice Studies
LA Language and Literacy Education
LE Learning and Development
LP Legal Practice
LS Life Science
LW Law
MA Mathematics
MD Mathematics, Science and Technology Education

ME Mechanical and Manufacturing Engineering
MG Management
MJ Media and Journalism
MK Marketing and International Business
NS Nursing
OP Optometry
PH Physics
PS Planning, Landscape Architecture and Surveying
PU Public Health
SB Social, Business and Environmental Education
SC Science
SS Social Science
SV Surveying

Level Indicators

X = Certificate, Associate Diploma, Associate Degrees, Diploma
B = Degree
P = Graduate Diploma
N = Masters Degree
R = Doctoral
A = Associate Diploma (all schools except Engineering)*
T = Associate Diploma in Engineering*
S = Special Units

* Codes to be phased out as existing QUT courses are reaccredited.

Prerequisite and Co-requisite Units

For definitions of the terms prerequisite and co-requisite unit(s), refer to Rule 1.8.2 of the Student Rules, Policies and Procedures in this Handbook.

■ AAB001 RESEARCH PROJECT

Students undertake a substantial piece of supervised research after academic advisement. This might include practical work and associated seminars.

Course: AA40

Credit Points: 48

■ AAB002 GRADUATE SEMINAR

Seminar series involving postgraduate students, staff and visiting experts in the cross-fertilisation of ideas and research in the arts. The seminars aim to foster a culture which shares and debates research findings and perceptions about the arts.

Course: AA40

Credit Points: 12 Contact Hours: 2 per week

■ AAB004 CONTEMPORARY AESTHETIC DEBATES

Introduction to modern aesthetic debates that inform contemporary art practice. The unit addresses philosophical discourse on art from Kant to postmodern theories.

Course: AA40

Credit Points: 12 Contact Hours: 3 per week

■ AAB005 READINGS IN VISUAL ARTS

This unit concentrates on developing critical and analytical skills in reading and writing about the visual arts. It focuses on critical art-historical writings since 1968.

Course: AA40

Credit Points: 12 Contact Hours: 3 per week

■ AAB006 FEMINIST STUDIES IN THE ARTS

Students will develop an understanding of historical and current feminist theory and will read and analyse art from feminist perspectives.

Course: AA40

Credit Points: 12 Contact Hours: 3 per week

■ AAB051 ARTS IN SOCIETY

Contemporary and historical perspectives on the relation between arts and society. Relevant themes and theories include fine art, modernism and the avant-garde, craft and utilitarianism, art and politics, representation and sexuality, patronage and institutions, cultural studies, postmodernism, art and technological change and cross-cultural encounters. A purpose-designed CD-ROM focusing across Australian arts exemplifies the lecture series.

Course: AA11, AA21, AA51, AA71, AA81, HU20, SS07 (M&J course code)

Credit Points: 12 Contact Hours: 3 per week

■ AAB053 GENDER ISSUES IN THE VISUAL AND PERFORMING ARTS

This unit introduces students to the ways in which the arts contribute to, or challenge, concepts of femininity and masculinity in Western European cultures. Areas covered include: an overview of various strands of feminist thought; discussion of key issues in the sex/gender debate; analysis of the representations of gender in both historical and contemporary examples of dance, drama, music and visual arts.

Course: AA11, AA21, AA51, AA71

Credit Points: 12 Contact Hours: 3 per week

■ AAB055 PROFESSIONAL PRACTICE

Through secondment to professional organisations, final year students gain insights into the practical application of their course work. Access to this unit is reserved for students who have demonstrated an outstanding level of self-directed learning and a high level of requisite skills.

Course: AA11, AA21, AA51, AA71, AA81

Prerequisite: High achievement in major study area

Credit Points: 12

■ AAB056 PROFESSIONAL STUDIES

This unit aims to facilitate a smooth and confident transition from undergraduate experiences to life in the arts

workforce. Exploration of current issues in the arts, and development of professional skills including public speaking, meeting procedures and career management.

Course: AA11, AA21, AA51, AA71

Credit Points: 12 Contact Hours: 3 per week

■ AAB057 INDEPENDENT STUDY

With the approval of the Unit Coordinator, the student constructs and executes a project in an area of their own choice. The project may be theoretical in the field of scholarship, practical intensive discipline work or experimental. Access to this unit is reserved for students who have demonstrated an outstanding level of self-directed learning and high level of requisite skills.

Course: AA11, AA21, AA51, AA71

Prerequisite: High achievement in major area of study

Credit Points: 12

■ AAB058 ARTS RESEARCH

An introduction to current research methods and approaches in the arts, the unit addresses the issues of the status of the observer and the nature of validation in research. This unit is a prerequisite for entry to Honours.

Course: AA11, AA21, AA51, AA71

Credit Points: 12 Contact Hours: 3 per week

■ AAB059 HYBRID ARTS PROJECT

With the approval of the Unit Coordinator, students may develop group cross-disciplinary projects or participate in a scheduled cross-disciplinary arts project. Approved or scheduled projects will develop new work in a workshop environment and lead to appropriate presentation.

Course: AA11, AA21, AA51, AA71

Prerequisite: Notable achievement in major area of study

Credit Points: 12

■ AAB060 APPLIED RESEARCH METHODOLOGIES

Students apply learning and understandings of arts research methods to their own identified areas of significance. The unit includes research proposal, literature review, conceptual frameworks, methodology, data collection and analysis and report publishing.

Course: AA11, AA21, AA51, AA71

Credit Points: 12 Contact Hours: 3 per week

■ AAB061 ARTS BUSINESS MANAGEMENT

An introduction to management techniques within the Australian arts environment, including company structures, cultural policy, strategic management and leadership in the arts, legal, ethical, economical and social requirements of arts, boards, entrepreneurial activity.

Course: AA11, AA21, AA51, AA71

Credit Points: 12 Contact Hours: 3 per week

■ AAB062 ARTS EVENT PROMOTION AND PUBLIC RELATIONS

The roles of publicist, promotion officer, marketing manager and public relations manager in arts organisations. Sponsorship, fundraising programs, membership drives. Planning the promotional and public relations campaign.

Course: AA11, AA21, AA51, AA71

Credit Points: 12 Contact Hours: 3 per week

■ AAB100 COMPOSITION 1

Introduction to improvisation and choreographic devices, exploration of the fundamental concepts of time, space and energy Experimentation in the use of dance to express ideas.

Course: AA11

Credit Points: 12 Contact Hours: 3 per week

■ AAB104 MUSIC

Elements of music: beat, accent, rhythm and phrasing; nineteenth and twentieth century musical styles; notation, score reading, vocal and improvisation studies.

Course: AA11
Credit Points: 12 Contact Hours: 3 per week

■ **AAB106 DANCE ANALYSIS & HISTORY 2**
Introduction to the analysis of dance through a concentration on the dance as text; a study of various historical contexts of dance as art. Focus on modern dance.

Course: AA11 Prerequisite: AAB125
Credit Points: 12 Contact Hours: 3 per week

■ **AAB109 PRACTICUM**
Consolidation of the student's knowledge and skills in direct artistic experience in real contexts.

Course: AA11
Credit Points: 12

■ **AAB112 HISTORY OF AUSTRALIAN THEATRE DANCE**

A study of the development of dance as an art form in Australia in the twentieth century.

Course: AA11
Credit Points: 12 Contact Hours: 3 per week

■ **AAB114 DANCE IN AUSTRALIAN SOCIETY**
The ritual, artistic and social functions of dance in contemporary Australian society.

Course: AA11
Credit Points: 12 Contact Hours: 3 per week

■ **AAB116 DANCE IN THE COMMUNITY**

Identifying community groups and issues; functions and benefits of dance in the community; political and social role of the dance artist; philosophy and practice of community arts in Australia; funding and planning procedures; adaptation of dance skills.

Course: AA11
Credit Points: 12 Contact Hours: 3 per week

■ **AAB117 DANCE IN EDUCATION**

Introduction to the philosophy and practice of dance education, particularly the areas of performance, choreography and appreciation. Appropriate for students planning a career in either primary or secondary education sectors.

Course: AA11
Credit Points: 12 Contact Hours: 3 per week

■ **AAB121 CONTEMPORARY TECHNIQUE 1**

Designated Unit. The basic contemporary dance vocabulary; study of Graham, Cunningham or Limon Technique; reference to development of strength, flexibility and placement of spine and limbs; basic combinations of movements; analysis of dance sequences (year-long unit)

Course: AA11
Credit Points: 12 Contact Hours: 7.5 per week

■ **AAB122 CONTEMPORARY TECHNIQUE 2**

Designated Unit. Technical work: off-balance turns and rapid changes of weight, level and direction; exploration of rhythm; emphasis on performance of sequence work (year-long unit)

Course: AA11 Prerequisite: AAB121
Credit Points: 12 Contact Hours: 7.5 per week

■ **AAB125 DANCE ANALYSIS & HISTORY 1**

Introduction to the analysis of dance through a concentration on the dance as text; a study of various historical contexts of dance as art. Focus on ballet.

Course: AA11
Credit Points: 12 Contact Hours: 3 per week

■ **AAB155 ADVANCED ANALYSIS: BALLET**

Development of students' skills in the aesthetic appreciation and analysis of masterworks of dance. Content includes review of elements and principles of dance analysis; Classicism; Romanticism; choreographic processes in ballet.

Course: AA11 Prerequisite: AAB106
Credit Points: 12 Contact Hours: 2 per week

■ **AAB156 ADVANCED ANALYSIS: MODERN**

Development of students' skills in the aesthetic appreciation and analysis of masterworks of dance. Content includes evaluating and interpreting the dance, review of dance language, aesthetic theory and styles in dance.

Course: AA11 Prerequisite: AAB106
Credit Points: 12 Contact Hours: 2 per week

■ **AAB157 ADVANCED ANALYSIS: COMPARATIVE**

The skills involved in the aesthetic appreciation and analysis of the masterworks of ballet or modern/contemporary dance used to engage in a comparison of features of specific dances chosen for detailed study.

Course: AA11
Prerequisites: AAB155, AAB156
Credit Points: 12 Contact Hours: 1 per week

■ **AAB158 ADVANCED COMPOSITION 1**

Exploration of how dance creates meaning: the aesthetic questions that have emerged out of the last major choreographic movement; an exploration of possible future directions.

Course: AA11
Corequisite: AAB155
Credit Points: 12 Contact Hours: 5 per week

■ **AAB159 ADVANCED COMPOSITION 2**

Contact improvisation and its use as a basis for the development of partner work; the range of traditional and non-traditional forms available to the choreographer when working with groups of varying sizes.

Course: AA11
Corequisite: AAB156
Credit Points: 12 Contact Hours: 5 per week

■ **AAB165 COMPOSITION 2**

Extends the students' dance composition knowledge and skills and provides opportunity for choreographic experimentation. Focus on movement, content and form. Music, costume and lighting will be considered in relationship to developing the work for performance (year-long unit).

Course: AA11 Prerequisite: AAB100
Credit Points: 12 Contact Hours: 1.5 per week

■ **AAB166 BALLET TECHNIQUE AND KINESIOLOGY**

Designated unit. Consolidation of the fundamental technique and its applications designed to reinforce and develop an appropriate range of technical skills within the four-tier practical level system. Study of anatomical structures and systems and the practical application injury prevention and management techniques (year-long unit).

Course: AA11
Credit Points: 12 Contact Hours: 6 per week

■ **AAB167 BALLET TECHNIQUE AND ALIGNMENT**

Designated unit. Designed to expand students' understanding of the basic principles of ballet technique and to provide an awareness of alignment principles and alternative body philosophies (year-long unit).

Course: AA11 Prerequisite: AAB166
Credit Points: 12 Contact Hours: 6 per week

■ **AAB168 PERFORMANCE STUDIES 1**

Development of outstanding practical skills in a variety of dance styles and exploration of the ways the performer provides a resource for the choreographer. Repertoire and the processes involved in the learning, rehearsing and performing of different styles of choreographic work.

Course: AA11
Credit Points: 12 Contact Hours: 3 per week

■ AAB169 PERFORMANCE STUDIES 2

Further development of skills in both technical and artistic expression aligned with the exploration of the rehearsal and performing work ethic.

Course: AA11 Prerequisite: AAB168
Credit Points: 12 Contact Hours: 3 per week

■ AAB170 PERFORMANCE STUDIES 3

Synthesis of the artform; incorporation of all elements of study, culminating in public performances.

Course: AA11 Prerequisite: AAB169
Credit Points: 12 Contact Hours: 3 per week

■ AAB171 DANCE STYLES 1

Jazz and tap styles – essential steps and various combinations.

Course: AA11
Credit Points: 12 Contact Hours: 3 per week

■ AAB172 DANCE STYLES 2

Folk dance and musical theatre. Various dances specific to different areas of the world; skills required in the presentation of musical theatre.

Course: AA11 Prerequisite: AAB171
Credit Points: 12 Contact Hours: 3 per week

■ AAB173 ADVANCED PERFORMANCE 1

Development of outstanding practical skills combining the use of aesthetic quality and artistry.

Course: AA11 Prerequisite: Audition
Credit Points: 12

■ AAB174 ADVANCED PERFORMANCE 2

The dancer's responsibilities to the choreographer and fellow dancers, and approach to the rehearsal situation. Classes include point, repertoire, character, pas de deux, musical theatre.

Course: AA11 Prerequisite: AAB173
Credit Points: 12

■ AAB175 FOLK DANCE

Historical and cultural contexts; study of the wider aspects of folk dance (costume, music, ideology); steps and sequences from a wide range of folk dances.

Course: AA11
Credit Points: 12 Contact Hours: 3 per week

■ AAB176 JAZZ AND POPULAR DANCE

History and sociology of jazz and popular dances; examination of dance in musical theatre and other commercial contexts; basic technique and steps in a range of jazz and popular dance styles.

Course: AA11
Credit Points: 12 Contact Hours: 3 per week

■ AAB177 PRODUCTION TECHNIQUES

Introduction to the mechanics of theatre productions, the personnel and tasks. Lighting, sound, costume.

Course: AA11
Credit Points: 12 Contact Hours: 3 per week

■ AAB202 ACTING 1

Designated unit. Fundamentals of theatre and the acting process. Workshop activities including improvisation and exercises which focus on the elements of dramatic form and the acting process.

Course: AA21
Credit Points: 12 Contact Hours: 14 per week

■ AAB203 ACTING 2

Designated unit. Introduction to text-based performance; the naturalistic style of acting, the foundation for stage, film and television; textual analysis, personal research in role preparation; efficient use of rehearsal time.

Course: AA21 Prerequisite: AAB202
Credit Points: 12 Contact Hours: 21 per week

■ AAB204 VOICE AND MOVEMENT 1

Introduction to a holistic approach to body and voice

and their integration as the basis for all forms of dramatic expression.

Course: AA21

Credit Points: 12 Contact Hours: 6 per week

■ AAB205 VOICE AND MOVEMENT 2

Continuation of developing an understanding of the concepts and skills required for a career as a professional performer. Text work, advanced voice and body training, strength and stamina, flexibility, fluency, expressiveness.

Course: AA21 Prerequisite: AAB204
Credit Points: 12 Contact Hours: 6 per week

■ AAB208 ELEMENTS OF DRAMA

Development of an understanding of drama theory and practice, and of their interrelation through an introduction to the basic elements of dramatic performance such as space, performer, audience, language, rhythm, action.

Course: AA21
Credit Points: 12 Contact Hours: 3 per week

■ AAB214 PROCESS DRAMA

Workshops involving individual, face-to-face and group role play; participant enrolment, leader-in-role and intervention; identification with role; negotiation, devising and consequent decision-making; dramatic tension and resolution; structuring for the theme and for the dramatic moment; distancing devices; reflection, re-enactment and remaking.

Courses: AA21, ED50
Credit Points: 12 Contact Hours: 3 per week

■ AAB216 PLAYWRITING

An introduction to writing text for performance and appraising scripts; the main qualities of dramatic writing are identified; the working environment for dramatic writers in Australia is considered.

Course: AA21
Credit Points: 12 Contact Hours: 3 per week

■ AAB233 VOICE AND MOVEMENT 3

This unit moves from naturalism to the area of heightened language. Focus is on the technical devices of Shakespearean text. Work developed will be performed both on the stage and for camera.

Course: AA21 Prerequisite: AAB205
Credit Points: 12 Contact Hours: 6 per week

■ AAB234 VOICE AND MOVEMENT 4

Development of a vocal and physical technique that supports and serves the professional performer. Advanced classes in physical theatre will develop physical expressiveness, clarity and strength. Advanced studio work continues development in film and television techniques.

Course: AA21 Prerequisite: AAB233
Credit Points: 12 Contact Hours: 6 per week

■ AAB235 VOICE AND MOVEMENT 5

Application of acting skills involving voice and movement is consolidated in production situations. Students are prepared for auditions for directors and agents.

Course: AA21 Prerequisite: AAB234
Credit Points: 12 Contact Hours: 6 per week

■ AAB247 ACTING 3

Designated unit. Exploration of non-naturalistic style of text and performance. Development of more specific acting skills and deeper textual understanding necessary to perform Shakespearean text, on the stage and for film and television.

Course: AA21 Prerequisite: AAB203
Credit Points: 12 Contact Hours: 21 per week

■ AAB248 ACTING 4

Designated unit. Advanced unit dealing with role, character creation and playing a range of theatrical styles.

Professional text preparation, rehearsal management and audition techniques.

Course: AA21 Prerequisite: AAB247
Credit Points: 12 Contact Hours: 20 per week

■ **AAB251 STUDIES IN THEATRE HISTORY 1**
The first in a series of three Theatre History units, this examines the three major theatre movements: Realism, Epic Theatre and Theatre of the Avant Garde.

Course: AA21
Credit Points: 12 Contact Hours: 3 per week

■ **AAB252 STUDIES IN THEATRE HISTORY 2**
Explores theatre genres where structure has played a major role. Heightened and stylised language, music theatre, spectacle and multimedia.

Course: AA21
Credit Points: 12 Contact Hours: 3 per week

■ **AAB253 STUDIES IN THEATRE HISTORY 3**
Draws on the understandings developed in the previous Theatre History units and relates them to the development of Australian performance idioms. Indigenous Australian performance; post-colonial and intercultural drama; fusing traditional and contemporary form to create Australian content for the global market.

Course: AA21
Credit Points: 12 Contact Hours: 3 per week

■ **AAB254 MUSIC AND DANCE**

Origins of music, music and the body, rhythm, ear training. Periods and styles of music and improvisation. Individual vocal coaching in preparation for performance. Posture and alignment of the body, introduction to basic technical principles in traditional and contemporary dance technique and dance sequences (year-long unit).
Course: AA21 Prerequisite: AAB205 or by audition
Credit Points: 24 Contact Hours: 3 per week

■ **AAB255 THEATRE PRODUCTION 1**

Students participate in a season of semi-profiled performance projects. Acting students working as an ensemble perform in roles for video and theatre. Technical students work in a range of organisation and technical roles.
Course: AA21 Prerequisite: AAB248 or AAB294
Credit Points: 24

■ **AAB256 THEATRE PRODUCTION 2**

Students participate in a season of profiled performance projects. The season gives the students the opportunity to demonstrate their skills to potential employers in the industry.

Course: AA21 Prerequisite: AAB248 or AAB294
Credit Points: 36

■ **AAB257 ACTING STUDIES 1**

Students are introduced to the work of Stanislavski and a number of his key interpreters including Cohen, Benedetti, Hagen, Adler and Moore. A range of acting styles is explored including an examination of Brecht's theories of performance.

Course: AA21
Credit Points: 12 Contact Hours: 3 per week

■ **AAB258 ACTING STUDIES 2**

Introduction to methods of script analysis and style analysis appropriate for a practical exploration of Shakespearean play texts. Students explore and rehearse selected scenes from a number of Shakespeare's plays.

Course: AA21
Credit Points: 12 Contact Hours: 3 per week

■ **AAB259 THE PERFORMANCE INSTRUMENT: BODY AND VOICE**

Understanding vocal and physical patterns; application of integrated approach to body and voice in personal expression.

Course: AA21
Credit Points: 12 Contact Hours: 4 per week

■ **AAB261 THE ARTS ENVIRONMENT**

Introduction to the context for arts management; economics of the arts; formation of national and state arts policy; interplay amongst arts organisations and related fields of endeavour like the media, the education system, business and recreation.

Course: AA21
Credit Points: 12 Contact Hours: 3 per week

■ **AAB263 ARTS MARKETING**

General principles of marketing; the marketing plan; applications in the arts; planning, research and analysis, targeting, costing and presenting to the client.

Course: AA21
Credit Points: 12 Contact Hours: 3 per week

■ **AAB266 ARTS EVENTS PLANNING**

Researching and producing either strategic, operational or human resource management plans; confronting practical and philosophical issues in arts planning.

Course: AA21
Credit Points: 12 Contact Hours: 3 per week

■ **AAB271 STUDIES IN DIRECTING**

History of the development of the role of the director; theoretical study of key major directors in West European tradition as well as key Australian directors. Practical work includes rehearsal techniques and problem-solving exercises.

Course: AA21
Credit Points: 12 Contact Hours: 3 per week

■ **AAB272 DRAMA AND COMMUNITY CULTURAL DEVELOPMENT**

Examination of drama's role in the life of the Australian community. Interrogation of the concepts of community, culture and development; cultural development and its relationship to art and the new technologies.

Course: AA21
Credit Points: 12 Contact Hours: 3 per week

■ **AAB273 PERFORMANCE**

Introduction to a clearly defined rehearsal ethic through extended performance project. Text analysis, formal group discussion, role creation and rehearsal, live performance of a scripted drama before an audience.

Course: AA21 Prerequisite: AAB202
Credit Points: 12

■ **AAB274 THEATRECRAFT**

Development of practical skills in workshop construction and pre-production areas of stage scenery, props and costumes.

Course: AA21
Credit Points: 12 Contact Hours: 6 per week

■ **AAB275 READING PERFORMANCE**

Theories of analysis: script to performance, semiotics, hermeneutics, reception studies, anthropology, phenomenology; theatrical actions and reactions, feminist studies. Objects of analysis include the classics, video/film, musicals, dance theatre, installations, stand-up comedy, opera, hybrid art forms and street theatre.

Course: AA21
Credit Points: 12 Contact Hours: 3 per week

■ **AAB276 VISUAL THEATRE**

Role of visual expression in theatrical events; elements of space; approaches to researching design elements; bearing of text and resources on events; Western and Eastern influences.

Course: AA21
Credit Points: 12 Contact Hours: 3 per week

■ AAB277 PHYSICAL THEATRE

Exercises and improvisation relating to physical performance; skills in circus, street theatre, popular theatre and acrobatic techniques. The practical components are contextualised by readings and discussions of the work of physical theatre exponents.

Course: AA21 Prerequisite: audition/interview
Credit Points: 12 Contact Hours: 3 per week

■ AAB278 TECHNICAL THEATRE

Introductory technical knowledge and skills in theatrical lighting and sound operation necessary to stage a production in a small theatre with a minimum of support staff.

Course: AA21 Prerequisite: audition/interview
Credit Points: 12 Contact Hours: 3 per week

■ AAB279 THEATRE FOR YOUNG PEOPLE

Youth theatre, young people's theatre, theatre in education and community theatre. Strategies for working with young people that take account of contemporary cultural currents; incorporated use of tools such as electronic media to focus on young people's cultural consumption and production.

Course: AA21, ED50
Credit Points: 12 Contact Hours: 5 per week

■ AAB280 DRAMA AS SOCIAL ACTION

Combination of practical and theoretical investigation into the process of improvisation and the way drama can be used as a tool for critical enquiry and social change. Provides basis for further work in writing for performance and advanced improvisational skills.

Course: AA21, ED22, ED50 Prerequisite: AAB214
Credit Points: 12 Contact Hours: 3 per week

■ AAB281 DIRECTING FOR THEATRE

Analysis of the director's role in production management including play selection, resource auditing, pre-production analyses, time, budget and resource planning, design, technical effects, promotion and publicity and the responsibilities of health, safety and ethical issues.

Course: AA21
Credit Points: 12 Contact Hours: 3 per week

■ AAB282 WRITING FOR PERFORMANCE

Exercises in aspects of writing performance text; evaluation of a piece of new writing; the generation, polishing and formatting of original performance text; acting as dramaturge in the development of the text of a fellow student.

Course: AA21
Credit Points: 12 Contact Hours: 4 per week

■ AAB289 TECHNICAL PRODUCTION 1

Development of basic skills in theatrical lighting and sound operation and their integration into the overall production process.

Course: AA21 Prerequisite: AAB202
Credit Points: 12 Contact Hours: 6 per week

■ AAB290 TECHNICAL PRODUCTION 2

Continuation of creative use of lighting and sound in performances. Introduction to lighting and sound design.

Course: AA21 Prerequisite: AAB289
Credit Points: 12 Contact Hours: 6 per week

■ AAB291 TECHNICAL PRODUCTION 3

Broadening of skills base in areas of lighting and sound into drama, contemporary dance, ballet, opera, musicals, concerts and television productions.

Course: AA21 Prerequisite: AAB290
Credit Points: 12 Contact Hours: 21 per week

■ AAB292 STAGE AND TECHNICAL MANAGEMENT 1

Introduction to coordination of a live theatre production

including theatre layout and terminology, role of the stage manager, duties and responsibilities from pre-rehearsal to close of season, communication procedures, rehearsal room procedures.

Course: AA21
Credit Points: 12 Contact Hours: 4 per week

■ AAB293 STAGE AND TECHNICAL MANAGEMENT 2

Introduction to the management issues in areas of stage mechanics, flying, props and wardrobe and preparation of students to undertake performance crew roles in these departments.

Course: AA21 Prerequisite: AAB292
Credit Points: 12 Contact Hours: 4 per week

■ AAB294 STAGE AND TECHNICAL MANAGEMENT 3

Broadening the skills base for stage managers into opera, ballet, modern dance, concerts and television, including the responsibilities of production management.

Course: AA21 Prerequisite: AAB293
Credit Points: 12 Contact Hours: 4 per week

■ AAB304 FORMING KNOWLEDGE

The approaches to art taken by major aestheticians; the characteristics and significance of the aesthetic field; the way the arts contribute to the development of mind and knowledge; modes of knowing, propositional knowledge and tacit understanding.

Courses: AA21, ED50
Credit Points: 12 Contact Hours: 3 per week

■ AAB410 ART CURRICULUM DESIGN & DEVELOPMENT

Major art curriculum approaches as found in the literature and a variety of art syllabus support documents. Analysis of art curriculum planning models; design and development of art programs for schools; production of art resources to support curriculum.

Course: ED26
Credit Points: 12 Contact Hours: 3 per week

■ AAB411 DRAMA ACROSS THE CURRICULUM

Process models of drama applied to curriculum; drama methods, dramatic contexts and power in the classroom; content analysis and planning; implementation of lesson sequence based on dramatic action; preparation of curriculum materials. Compulsory study school for external students.

Course: ED26
Credit Points: 12 Contact Hours: 3 per week

■ AAB412 ART CURRICULUM STUDIES 1

Students develop planning and teaching skills in selected curriculum areas. Content includes: the nature of the curriculum area/discipline; its role and contribution as a medium for education; introduction to relevant syllabuses and curriculum documents; lesson and curriculum unit planning activities; and teaching strategies designed to promote a range of learning experiences in selected curriculum areas.

Course: ED50, ED54
Prerequisites: 48 credit points in each relevant discipline area.
Credit Points: 12 Contact Hours: 3 per week

■ AAB413 ART CURRICULUM STUDIES 2

Extends AAB412; curriculum development within the context of contemporary policies, frameworks and agencies; principles of measurement, assessment and evaluation; teaching and learning strategies; directions in curriculum development.

Course: ED50, ED54 Prerequisite: AAB412
Credit Points: 12 Contact Hours: 3 per week

■ **AAB414 DRAMA CURRICULUM STUDIES 1**
Students develop planning and teaching skills in selected curriculum areas; the nature of the curriculum area/discipline and its role and contribution as a medium for education; introduction to relevant syllabuses and curriculum documents; lesson and curriculum unit planning activities; and teaching strategies designed to promote a range of learning experiences in selected curriculum areas.

Course: ED50, ED54

Prerequisites: 48 credit points in each relevant discipline area.

Credit Points: 12 Contact Hours: 3 per week

■ **AAB415 DRAMA CURRICULUM STUDIES 2**
Extends AAB414; curriculum development within the context of contemporary policies, frameworks and agencies; principles of measurement, assessment and evaluation; teaching and learning strategies; directions in curriculum development.

Course: ED50, ED54

Prerequisite: AAB414

Credit Points: 12 Contact Hours: 3 per week

■ **AAB421 FOUNDATION ART STUDIES**

Participation in the process of solving broad-ranging visual problems through developing ideas, recording information and forming solutions to visual problems; seeks to develop genuine enquiry and the attainment of appropriate levels of competence of techniques, materials and resources to bring ideas to fruition.

Course: ED50

Credit Points: 12 Contact Hours: 4 per week

■ **AAB447 DRAWING**

Examination of established systems of drawing by historical reference and exploration of materials; methods by which shape and volume can be determined by drawing techniques; the line as a means of expression and communication; methods and techniques for creating solid form by the use of various media; perspective; rendering; perceptual organisation and expressive effects; use of drawing for teachers who require visual expression and delineation within their areas.

Courses: AA71, ED22, ED26, ED50

Credit Points: 12 Contact Hours: 3 per week

■ **AAB449 EDUCATIONAL DRAMA**

Not offered in 1996. Practical introduction to educational drama techniques: teacher-in-role, enrolment of students, dramatic exercises, analogies, simulations; fieldwork project; planning, teaching and evaluating a simple program. Incompatible with tertiary studies in drama or substantial experience in teaching drama.

Course: ED26

Credit Points: 12 Contact Hours: 3 per week

■ **AAB455 COMPUTER GRAPHICS**

An introduction to 2D and 3D image generation, manipulation and output through the critical study of systems, software, procedures and applications. Students develop a core understanding of the current characteristics and potentialities embedded in the technology.

Courses: AA71, ED22, ED26, ED5

Credit Points: 12 Contact Hours: 3 per week

■ **AAB457 SCULPTURE**

Students will be expected to observe, question and explore issues to reach solutions that will reflect an individual imagination. Knowledge and skills that apply to sculpture will be pursued.

Courses: AA71, ED22, ED26, ED50, ED51, ED52

Credit Points: 12 Contact Hours: 3 per week

■ **AAB601 MUSICIANSHIP 1**

Reading skills acquired by the study of material in a variety of harmonic contexts. Keyboard skills: extension

of existing skills by application of scales, intervals, chord formation in sight reading, accompanying and improvisation at the keyboard (year-long unit).

Course: AA51

Credit Points: 12 Contact Hours: 2 per week

■ **AAB602 MUSICIANSHIP 2**

Continuation of AAB601 with emphasis on developing a heightened awareness of the musical structure, organisation and quality of sound (year-long unit).

Course: AA51

Prerequisite: A grade of 4 or above in AAB601

Credit Points: 12 Contact Hours: 2 per week

■ **AAB604 WRITING TECHNIQUES 1**

A focus on diatonic harmony using written exercises and original compositions. Content includes melody writing, four-part vocal score, short pieces for piano, cycle of fifths and choral cadences, introductory jazz harmony and the use of computers for music writing (year-long unit).

Course: AA51

Credit Points: 12 Contact Hours: 2 per week

■ **AAB605 WRITING TECHNIQUES 2**

A focus on chromatic harmony and twentieth century techniques through written exercises and original composition (year-long unit).

Course: AA51

Prerequisite: A grade of 4 or above in AAB604

Credit Points: 12 Contact Hours: 2 per week

■ **AAB606 PRINCIPAL STUDIES 1**

Designated unit. Development of strong and reliable technique on a chief practical instrument, voice or composition. Analysis, interpretation and performance skills and appropriate public presentation in performance. Improvisation (Jazz and Popular Music students only) (year-long unit).

Course: AA51

Credit Points: 24 Contact Hours: 4 per week

■ **AAB607 PRINCIPAL STUDIES 2**

Designated unit. The study of a range of solo repertoire on a chief practical instrument or voice, or the study of a range of compositional practices and methods. Repertoire is chosen appropriate to the students' developing technical and interpretative skills; performance seminar, concerts and directed ensemble. Improvisation (Jazz and Popular Music students only) (year-long unit).

Course: AA11

Prerequisite: AAB606

Credit Points: 24 Contact Hours: 4 per week

■ **AAB608 PRINCIPAL STUDIES 3**

Consolidation and extension of studies leading to a solo public recital in semester two. Performance seminar, directed ensemble and concert attendance. Improvisation (Jazz and Popular Music students only) (year-long unit).

Course: AA11

Prerequisite: AAB607

Credit Points: 24 Contact Hours: 4 per week

■ **AAB609 MUSIC IN WESTERN CIVILISATION 1**

Overview of musical history and styles from late medieval times to the end of Baroque period within the context of Western culture.

Course: AA51

Credit Points: 12 Contact Hours: 4 per week

■ **AAB610 MUSIC IN WESTERN CIVILISATION 2**

Overview of musical history and styles from the Classical period up to the present day within the context of Western culture.

Course: AA51

Credit Points: 12 Contact Hours: 4 per week

■ AAB611 MUSIC FROM 1600 TO 1750

Music Literature and Analysis: study of the history and stylistic development of late Renaissance, Baroque and Early Classical music in its social and cultural context; analytical studies of a range of representative works dealing with stylistic characteristics and compositional processes.

Course: AA51 Prerequisite: AAB609 or AAB610
Credit Points: 12 Contact Hours: 3 per week

■ AAB612 MUSIC FROM 1750 TO 1900

Music Literature and Analysis: study of the history and stylistic development of Classical and Romantic music in its social and cultural context; analytical studies of a range of representative works dealing with stylistic characteristics and compositional processes.

Course: AA51 Prerequisite: AAB609 or AAB610
Credit Points: 12 Contact Hours: 3 per week

■ AAB613 MUSIC FROM 1900 TO 1950

Music Literature and Analysis: historical overview of the various major styles of twentieth-century music with major emphasis on Debussy, the Second Viennese School, Bartok and Stravinsky; analysis of selected key works of the period.

Course: AA51 Prerequisite: AAB609 or AAB610
Credit Points: 12 Contact Hours: 3 per week

■ AAB614 MUSIC FROM 1950 TO PRESENT DAY

Music Literature and Analysis: listening, analysis and study of the music of composers representing a broad international spectrum of the major styles of the period.

Course: AA51 Prerequisite: AAB609 or AAB610
Credit Points: 12 Contact Hours: 3 per week

■ AAB615 JAZZ AND POPULAR MUSIC

Music Literature and Analysis: a sociological and musico-logical survey of Western popular music this century encompassing a range of styles and forms, including blues, pre-modern jazz, modern jazz, pop and youth culture.

Course: AA51
Credit Points: 12 Contact Hours: 3 per week

■ AAB616 ENSEMBLE 1

Students experience the cooperative interaction of music making as a participant in large ensembles, chamber music or small combo activity. (Year-long unit available only with the approval of Unit Coordinator.)

Course: AA51 Prerequisite: AAB606
Credit Points: 12 Contact Hours: 4 per week

■ AAB617 CHORAL AND INSTRUMENTAL ARRANGING

Development of arranging skills for instrumental/choral ensembles using music of various styles.

Course: AA51
Credit Points: 12 Contact Hours: 3 per week

■ AAB618 COMPOSITION FOR FILM AND TELEVISION

Continuation of the development of computer sequencing and compositional skills. Incorporates a shift in focus towards film and video time coding, film analysis and visual and thematic coding.

Course: AA51 Prerequisite: AAB604
Credit Points: 12 Contact Hours: 3 per week

■ AAB619 INTRODUCTION TO MUSIC TECHNOLOGY

Introduces students to the broad range of options available to the musician in the age of technology. Through the universal electronic language of MIDI students explore sequencers as a tool for composition.

Course: AA51
Prerequisite: Ability to read common practice notation
Credit Points: 12 Contact Hours: 3 per week

■ AAB620 INTRODUCTION TO POPULAR SONG COMPOSITION

Continues the development of MIDI sequencing skills while the focus moves from the technology itself to the application of skills in the area of Popular Music Composition and Arrangement.

Course: AA51 Prerequisite: AAB604
Credit Points: 12 Contact Hours: 3 per week

■ AAB621 STUDIO RECORDING TECHNIQUES

Study of basic acoustics, recording procedures and equipment, critical analysis and discussion of recordings, recording projects involving a variety of ensembles.

Course: AA51
Credit Points: 12 Contact Hours: 3 per week

■ AAB622 SECOND STUDY 1

Widens the base of students' practical skills through the study of a second instrument or voice. (Students normally choose an instrument closely related to that of their Principal Study.) (Year-long unit available to AA51 students only.)

Course: AA51
Prerequisite: Consent of Course Coordinator
Credit Points: 12 Contact Hours: 4 per week

■ AAB623 CHORAL CONDUCTING

Introduces students to a wide range of choral music and styles and assists them to achieve artistic objectives in music performance through conducting workshop activities including practical conducting, stylistic practices, repertoire and rehearsal and performance techniques.

Course: AA51 Prerequisite: AAB605
Credit Points: 12 Contact Hours: 3 per week

■ AAB624 COMPUTER MUSIC

Introduces students to algorithmic composition, interactive composition and performance, sound synthesis, contemporary compositional techniques, computer performance interfaces and live performance practices in computer music.

Course: AA51 Prerequisite: AAB604 and AAB619
Credit Points: 12 Contact Hours: 3 per week

■ AAB625 INSTRUMENTAL CONDUCTING

Introduces students to a wide range of instrumental works and styles and assists them to achieve artistic objectives in music performance through conducting workshop activities including practical conducting, score preparation and rehearsal techniques.

Course: AA51 Prerequisite: AAB605 and AAB610
Credit Points: 12 Contact Hours: 3 per week

■ AAB626 MUSIC AND SOUND FOR MULTIMEDIA

This unit deals with computer-assisted music composition, the role of music in non-linear structures, the effect and affect of sound in multimedia productions, sound effects and Foley techniques, introductory multimedia authoring, musical acoustics and digital sound theory.

Course: AA51 Prerequisite: AAB601 or AAB619
Credit Points: 12 Contact Hours: 3 per week

■ AAB627 STUDIO MUSIC TEACHING

This unit is designed to give students a structured approach to the teaching of their craft in the studio and to investigate and develop those pedagogical skills and personal attributes necessary to become successful teachers.

Course: AA51 Prerequisite: AAB606 or equivalent
Credit Points: 12 Contact Hours: 3 per week

■ AAB628 SECOND STUDY 2

Continues the development of students' practical skills through the study of a second instrument or voice. (Stu-

dents normally choose an instrument closely related to that of their Principal Study.) (Year-long unit available to AA51 students only.)

Course: AA51 Prerequisite: AAB622
Credit Points: 12 Contact Hours: 4 per week

■ **AAB629 ENSEMBLE 2**

Further development of the cooperative interaction of music making by participating in large ensembles, chamber music or small combo activity. (Year-long unit available only with the approval of Unit Coordinator.)

Course: AA51 Prerequisite: AAB616
Credit Points: 12 Contact Hours: 4 per week

■ **AAB701 MODERNISM**

An examination of the concepts and movements that comprise twentieth-century modernism. Key themes such as avant-garde, modernism and modernity will be explored in detail, especially in relation to the theory and practice of avant-garde modernism.

Course: AA71, ED50
Credit Points: 12 Contact Hours: 3 per week

■ **AAB712 CONTEMPORARY ART ISSUES**

Current practices in the visual arts are addressed by analysing and interpreting original works on exhibition, in stockrooms and in studios. By means of lectures, discussions and analysis of artworks and readings, the individual's awareness of the conceptual, historical and philosophical contexts concerning artists and the artworks is heightened.

Courses: AA71, ED26, ED50
Credit Points: 12 Contact Hours: 3 per week

■ **AAB726 INTRODUCTION TO ART HISTORY**

Students are introduced to the basic thematics in the discipline of art history. Topics include approaches to art history; art as a symbolic object; art as commodity; the audiences for art; iconography, feminism and art history; semiotics; criticism and art history.

Course: AA71 Prerequisite: ATB100
Credit Points: 12 Contact Hours: 3 per week

■ **AAB740 FOUNDATION ART PRACTICE 1**

Designated unit. Development of a self-sustaining, self-responsible art practice; fostering of appropriate research skills; encouragement of open flexible independent approach to formulating resolutions to conceptual and visual concerns; development of safe workshop practices, safe studio work habits and appropriate professional skills.

Course: AA71
Credit Points: 24 Contact Hours: 12 per week

■ **AAB741 FOUNDATION ART PRACTICE 2**

Designated unit. Further development of a self-sustaining, self-responsible art practice; expansion of appropriate research skills; broadening of open flexible independent approach to formulating resolutions to conceptual and visual concerns; increased knowledge of safe workshop practices, safe studio work habits and appropriate professional skills.

Course: AA71
Credit Points: 24 Contact Hours: 12 per week

■ **AAB742 STUDIO ART PRACTICE 1**

Designated unit. In consultation with studio staff, students formulate a program of work for the semester which allows students to investigate their own personal artistic direction, formulate and develop self-generated enquiry and acquire working methods, resources, skills and knowledge necessary to realise concepts.

Course: AA71 Prerequisite: AAB741
Credit Points: 12 Contact Hours: 6 per week

■ **AAB743 STUDIO ART PRACTICE 2**

Designated Unit. In consultation with relevant staff,

students should develop a program of studio work which builds on the previous semester's studies and sets appropriate goals for this semester. A more rigorous questioning of concept and artefact is required.

Course: AA71 Prerequisite: AAB742
Credit Points: 12 Contact Hours: 6 per week

■ **AAB744 STUDIO ART PRACTICE 3**

Studies commenced in year two are built on and developed through sustained studio practice and independent research at an appropriately advanced level.

Course: AA71 Prerequisite: AAB743
Credit Points: 12 Contact Hours: 6 per week

■ **AAB745 STUDIO ART PRACTICE 4**

Further development of studio work culminating in a graduating exhibition.

Course: AA71 Prerequisite: AAB744
Credit Points: 12 Contact Hours: 6 per week

■ **AAB751 EXTENDED STUDIO PRACTICE 1**

Extension of practical studio units of core media studies or elective studio units. (Note: contract approval by the Unit Coordinator is required.)

Course: AA71, AA81, ED22, ED26, ED50, ED51, ED52
Credit Points: 12 Contact Hours: 6 per week

■ **AAB752 EXTENDED STUDIO PRACTICE 2**

Extension of practice studio units or core media studies or elective studio units.

Course: AA71, AA81, ED22, ED26, ED50
Credit Points: 12 Contact Hours: 6 per week

■ **AAB753 EXTENDED STUDIO PRACTICE 3**

Extension of practice studio units or core media studies or elective studio units.

Course: AA71, AA81
Credit Points: 24 Contact Hours: 12 per week

■ **AAB754 EXTENDED STUDIO PRACTICE 4**

Extension of practice studio units or core media studies or elective studio units.

Course: AA71, AA81
Credit Points: 24 Contact Hours: 12 per week

■ **AAB801 FOUNDATIONS OF COMMUNICATION DESIGN 1**

Visual design and its application in communication; exploration of fundamental human interface and graphic concepts; overview of media and variety of design practices.

Course: AA81
Credit Points: 12 Contact Hours: 3 per week

■ **AAB802 FOUNDATIONS OF COMMUNICATION DESIGN 2**

Design priorities/alternatives, interpretation of ideas, representation in visual systems, refinement of concepts, problem solving through presentation of models.

Course: AA81 Prerequisite: AAB801
Credit Points: 12 Contact Hours: 3 per week

■ **AAB807 MEDIA TECHNOLOGY 1**

The application of computers and digital technologies to the processes of visual communication design: computers, operating systems and networks; 2-D graphic systems; basic programming.

Course: AA81
Credit Points: 12 Contact Hours: 3 per week

■ **AAB808 MEDIA TECHNOLOGY 2**

Continuation of application of computers and digital technologies to the processes of visual communication design: page layout and design; screen layout and design; human-computer-interface design; intermediate programming.

Course: AA81 Prerequisite: AAB807
Credit Points: 12 Contact Hours: 3 per week

■ **AAB811 HISTORY OF DESIGN AND MEDIA TECHNOLOGY**

Major design developments in society from the nineteenth century; the impact of the Industrial Revolution on design; the convergence of media technology and visual communication; post-war movement towards greater specialisation within design applications.

Course: AA81
Credit Points: 12 Contact Hours: 3 per week

■ **AAB911 EXPLORING MUSIC 1**

Aural awareness, literacy and musicianship through vocal skills, both solo and ensemble.

Course: ED51
Credit Points: 12 Contact Hours: 3 per week

■ **AAB912 EXPLORING MUSIC 2**

Instrumental music forms with emphasis on recorder ensembles as a means of developing composition and arranging skills, and an awareness of stylistic developments. Conducting, rehearsing and performing techniques will be developed.

Course: ED51 Prerequisite: AAB911
Credit Points: 12 Contact Hours: 3 per week

■ **AAB913 EXPLORING MUSIC 3**

This unit involves a series of lectures on score reading, sight-singing, ensemble singing techniques, rehearsal and conducting skills. Aural training, music writing techniques and music technology skills are developed.

Course: ED51 Prerequisite: AAB912
Credit Points: 12 Contact Hours: 3 per week

■ **AAB914 VISUAL & PERFORMING ARTS CURRICULUM 1**

An in-depth study of either dance and drama, music or the visual arts; the place of the arts in a balanced curriculum; defining the arts; differences and commonalities; the arts and knowledge; the arts and integration across the primary curriculum.

Course: ED51
Credit Points: 12 Contact Hours: 3 per week

■ **AAB915 VISUAL & PERFORMING ARTS CURRICULUM 2**

An in-depth study of dance and drama, music or the visual arts; the place of the arts in a balanced curriculum; resourcing the arts; assessment and the arts; the arts and students with special needs; artists and education; the arts in a multicultural society.

Course: ED51
Credit Points: 12 Contact Hours: 3 per week

■ **AAB916 ADVANCED VISUAL & PERFORMING ARTS CURRICULUM**

The curriculum of dance, drama, music or visual arts to an advanced level; designing and implementing programs in one of the disciplines for the primary school; action research in the classroom to monitor and evaluate an arts curriculum project.

Course: ED51
Credit Points: 12 Contact Hours: 3 per week

■ **AAB917 THE ARTS & THE WHOLE CURRICULUM**

Using the arts in the primary school to integrate and synthesise cultural and historical movements, facts and values; models for planning and delivering an integrated curriculum driven by arts processes; forming multi-disciplinary teams to design, implement and evaluate a curriculum project in schools.

Course: ED51
Credit Points: 12 Contact Hours: 3 per week

■ **AAB918 ARTS FOUNDATION STUDIES**

Foundation experiences introducing the art forms of dance, drama, music and the visual arts; the purposes and functions of the arts in society; practical workshops in each discipline; visits to galleries and theatres in a range of community contexts.

Course: ED51
Credit Points: 12 Contact Hours: 3 per week

■ **AAN001 ARTS RESEARCH METHODS 1**

Research in the arts; defining the research tradition; qualitative research; emerging arts research processes; reporting of research findings.

Course: AT22
Credit Points: 12 Contact Hours: 3 per week

■ **AAN002 ARTS RESEARCH METHODS 2**

An application of the understandings gained in AAN001 to a selected area. Normally the student will produce an interpretive analysis in a written presentation of 5 000 words.

Course: AT22
Credit Points: 12 Contact Hours: 3 per week

■ **AAN003 AESTHETIC CODES IN CONTEMPORARY SOCIETY**

Theories of art within the discipline of aesthetics. Five key questions are addressed, against a background of contemporary Western society.

Courses: AA24, AT22
Credit Points: 12 Contact Hours: 3 per week

■ **AAN004 GRADUATE SEMINAR**

A seminar series for Honours and Masters students involving presentations by guests; in addition, staff discuss current research interests, and students report on issues arising in their own thesis work.

Courses: AT22
Credit Points: 12 Contact Hours: 3 per week

■ **AAN005 ADVANCED ARTS PROJECT**

This unit may be preparatory to the major research project of the Masters course. The project may be articulated with the final major project, in order to establish the initial framework of the major project, and involve technical and conceptual guidance from the relevant supervisor as required. Length of written presentation (or alternative format) to be determined in consultation with the supervisor.

Course: AT22 Credit Points: 24

■ **AAN006 INDEPENDENT STUDY**

Independent work of an artistic or scholarly nature which is of limited scope compared with the research project. The student devises an outline of study and/or action in consultation with a staff supervisor. Artistic outcomes would normally be expected to be to the standard of public showing. Written presentation requires a minimum of 6 000-10 000 words, or equivalent if other media/reportage is used.

Course: AA24 Credit Points: 12

■ **AAN011 ADVANCED PROFESSIONAL PRACTICE 1**

An investigation of the student's professional practice through observation and research in consultation with the supervisor.

Course: AA24 Credit Points: 12

■ **AAN012 ADVANCED PROFESSIONAL PRACTICE 2**

Extension and elaboration of the student's professional practice through evaluation and analysis in consultation with the supervisor.

Course: AA24 Credit Points: 12

■ **AAN013 ADVANCED PROFESSIONAL PRACTICE 3**

A significant artistic outcome as part of the student's skills development including research, rehearsal and preparation for an exhibition or performance.

Course: AA24 Credit Points: 24

■ **AAN101 ADVANCED DANCE ANALYSIS**

Students make an in-depth study of the life and work of a chosen choreographer.

Course: AT22
Credit Points: 12 Contact Hours: 3 per week

■ **AAN102 ADVANCED COMPOSITION**

The links between technology and dance in the areas of light and sound; the principal elements of dance design. Students are expected to implement a major individual project that involves the application and integration of a range of technological devices/ processes.

Course: AT22
Credit Points: 12 Contact Hours: 3 per week

■ **AAN200 DRAMATURGY**

An investigation of the role of the dramaturge in Western cultures, particularly the emerging role of the dramaturge in Australian theatre; the methodologies of the dramaturge, the criteria used for script assessment, and a comparative study of the role of the script editor/story editor in the screen writing industry.

Course: AA24, AA40
Credit Points: 12 Contact Hours: 2 per week

■ **AAN201 CONTEMPORARY AUSTRALIAN PLAYWRIGHTS**

Students study a number of current Australian playwrights; seminar papers focus on each writer, with input from directors, actors and writers.

Course: AA24
Credit Points: 12 Contact Hours: 3 per week

■ **AAN202 TEXTUAL ANALYSIS**

Analysis of a variety of cultural products selected from a cross-section of contexts, genre and media; an introduction to some of the major theoretical issues and concerns underlying contemporary developments in the fields of cultural analysis and literary criticism.

Course: AA24, AA40
Credit Points: 12 Contact Hours: 2 per week

■ **AAN501 MUSIC HISTORY, LITERATURE & ANALYSIS**

Study of the history and stylistic development of romantic and impressionist music in its social and cultural context; analytical studies (dealing particularly with stylistic characteristics and compositional processes) of a range of representative works.

Course: AT22
Credit Points: 12 Contact Hours: 3 per week

■ **AAN502 INSTRUMENTAL ARRANGING**

Development of arranging skills, using music of various styles; theory of arranging; practical arranging (small group); arrangement performance for large group (orchestra or band).

Course: AT22
Credit Points: 12 Contact Hours: 3 per week

■ **AAN700 CONTEMPORARY DEBATES ON THE NATURE OF ART**

Contemporary trends in the visual arts, nationally or internationally. The effect of the information revolution, technology and changing modes of world government and their economic/marketing implications. The relationship between modernism and post-modernism. The development of new conventions and values. A broad sense of post-structuralist critical tools employed in visual analysis.

Course: AA24

Credit Points: 12 Contact Hours: 3 per week

■ **AAP421 DANCE CURRICULUM STUDIES 1**

Provides a theoretical context and considers practical applications in curriculum planning and teaching and learning strategies; examines the roles of the teacher in the community and the profession.

Course: ED32, ED37 Prerequisite: AAP420
Corequisite: EDP451
Credit Points: 12 Contact Hours: 3 per week

■ **AAP422 DRAMA CURRICULUM STUDIES 1**

See AAP421.
Course: ED32, ED37 Prerequisite: AAP420
Corequisite: EDP451
Credit Points: 12 Contact Hours: 3 per week

■ **AAP423 MUSIC CURRICULUM STUDIES 1**

See AAP421.
Course: ED32, ED37 Prerequisite: AAP420
Corequisite: EDP451
Credit Points: 12 Contact Hours: 3 per week

■ **AAP424 VISUAL ARTS CURRICULUM STUDIES 1**

See AAP421.
Course: ED32, ED37 Prerequisite: AAP420
Corequisite: EDP451
Credit Points: 12 Contact Hours: 3 per week

■ **AAP429 DANCE CURRICULUM STUDIES 2**

Development of understanding and skills for learning; assessment issues and techniques; philosophical concepts relevant to dance education.

Course: ED37
Credit Points: 12 Contact Hours: 3 per week

■ **AAP430 DRAMA CURRICULUM STUDIES 2**

Advanced practical applications in assessment, curriculum planning and teaching/learning strategies in the relevant visual and performing arts area.

Course: ED32, ED37 Corequisite: EDP451
Credit Points: 12 Contact Hours: 3 per week

■ **AAP431 MUSIC CURRICULUM STUDIES 2**

See AAP430.
Course: ED32, ED37 Corequisite: EDP451
Credit Points: 12 Contact Hours: 3 per week

■ **AAP432 VISUAL ARTS CURRICULUM STUDIES 2**

See AAP430.
Course: ED32, ED37 Corequisite: EDP451
Credit Points: 12 Contact Hours: 3 per week

■ **AAP433 MUSIC CURRICULUM STUDIES 2A**

Extension studies in methods of teaching and curricula relevant to specialist teachers of instrumental, secondary or primary music.

Course: ED37 Prerequisite: AAP428
Corequisite: AAP431
Credit Points: 12 Contact Hours: 3 per week

■ **AAP434 MUSIC CURRICULUM STUDIES 1A**

A specialist extension study in curriculum for students planning a career as a primary, secondary or instrumental music specialist in schools; materials and appropriate methods of teaching related to music in the wider school curriculum outside the classroom.

Course: ED37 Credit Points: 12

■ **AAP501 ART CURRICULUM FOUNDATIONS**

The aims, content and agenda of historical and contemporary art education orientations; assumptions by movements in relation to art theories, child development, teacher's role and classroom practice; investigation of strengths and weaknesses, theory and practice

and historical, social and intellectual influence on past and present art education philosophies.

Courses: ED22, ED26

Credit Points: 12 Contact Hours: 3 per week

■ AAP502 ART EDUCATION PROGRAM DESIGN & PRACTICE

Design and implementation of defensible art education programs at broad and specific school levels; the learning outcomes of art activities; classroom practice and evaluation across all levels of schooling.

Courses: ED22, ED26, ED51 Prerequisite: AAP501

Credit Points: 12 Contact Hours: 3 per week

■ AAP503 CLAY MATERIALS

Develop ceramic knowledge, artistic concepts and practical/technical skills; investigation of selected historical ceramic eras; understanding of the relationship between ceramics and the maker's culture; development of personal imagery and design.

Courses: ED22, ED26, ED50, ED51, AA71

Credit Points: 12 Contact Hours: 3 per week

■ AAP505 FIBRE

Historical and contemporary textile media; development of technical and conceptual textile knowledge; utilisation of fibre/textile materials and processes to develop both 2 and 3 Dimensional textile artefacts/objects; the relationship between textile arts and selected cultures; particularly in relation to fashion design, individual development of design, construction and decoration techniques and textile imagery.

Courses: ED22, ED26, ED50, ED51, AA71

Credit Points: 12 Contact Hours: 3 per week

■ AAP507 PAINTING

Introducing and developing an active awareness of both historical and contemporary issues in painting and drawing through studio practice and tutorials; the skills appropriate to the range of available media pursued in studio classes and professional practice.

Courses: ED22, ED26, ED50, ED51, AA71

Credit Points: 12 Contact Hours: 3 per week

■ AAP509 PHOTOGRAPHIC MEDIA

Photographic processes; aesthetic aspects of photography; history of art and photography; personal approaches to photography.

Courses: ED22, ED26, ED50, ED51, AA71

Credit Points: 12 Contact Hours: 3 per week

■ AAP511 PRINTMAKING

Relief printmaking: raised and incised blocks in lino; wood and glued materials; intaglio printmaking: etching, engraving, dry point and aquatint; planographic printmaking: lithography, monoprints and transfer prints; stencil printmaking: silk screening and photographic stencils; presentation of prints.

Courses: ED22, ED26, ED50, ED51, AA71

Credit Points: 12 Contact Hours: 3 per week

■ AAX101 DANCE COMPOSITION 1

Discussion and theoretical understanding of dance composition; practical exploration of skills essential for dance composition including: establishment of approach or theme, style of movement, patterning of movement, phrasing of steps, selection and structuring of completed dance segments.

Course: AA09

Credit Points: 8 Contact Hours: 2 per week

■ AAX102 DANCE COMPOSITION 2

Discussion and investigation of dance forms; preparation and presentation of short solo and group sequences; practical experience in group dance through improvisation and set compositional studies; discussion and

criticism of presented dance work, discussion of criteria for evaluation and assessment of dance works. Choreography of a work for public performance.

Courses: AA09

Credit Points: 8 Prerequisite: AAX101
Contact Hours: 2 per week

■ AAX103 MUSIC

Musical basics through aural and written theories.

Courses: AA09

Credit Points: 8 Contact Hours: 1.5 per week

■ AAX104 DANCE KINESIOLOGY & ALIGNMENT

Principles governing human stability and motion; ways muscles work to produce dance movement; machines of the body; movement and dance injuries.

Course: AA09

Credit Points: 12 Contact Hours: 2.5 per week

■ AAX105 DANCE STYLES I

Study of folk dance, tap dance and jazz dance styles. Practical work includes: folk steps and dances from selected parts of the world; tap and jazz dance combinations and routines for performance.

Course: AA09

Credit Points: 8 Contact Hours: 2 per week

■ AAX106 DANCE STYLES 2

Development of dancing and singing skills; composition of dance routines for chorus; dramatic aspects of music comedy; tap dance combinations and routines, study of character and jazz styles; practical work includes basic technique, step combinations, solo and group choreographic work.

Courses: AA09

Credit Points: 8 Contact Hours: 3 per week

■ AAX111 REPERTOIRE & PRACTICE PERIOD 1

Designated Unit. Study of selected repertoire pieces; rehearsal of individual aspects of the repertoire work; performance of all or part of the selected repertoire; preparation for rehearsals and performance; technique and dress rehearsals; critical evaluation during season and post-performance evaluation.

Course: AA09

Credit Points: 12

■ AAX112 REPERTOIRE & PRACTICE PERIOD 2

Designated Unit. Continuation of studies initiated in AAX111.

Course: AA09

Credit Points: 16

Prerequisite: AAX111

■ AAX113 REPERTOIRE & PRACTICE PERIOD 3

Designated Unit. Continuation of AAX112.

Courses: AA09

Credit Points: 16

Prerequisite: AAX112

■ AAX114 REPERTOIRE & PRACTICE PERIOD 4

Designated Unit. Continuation of AAX113; preparation for the dance industry; curriculum vitae and funding applications.

Courses: AA09

Credit Points: 16

Prerequisite: AAX113

■ AAX115 DANCE HISTORY

Early development of dance technique; social and religious functions of dance; dance throughout the Renaissance period; the European and Russian contribution to classical ballet; the rise of modern dance in Europe and America; dance in Australia.

Course: AA09

Credit Points: 8 Contact Hours: 1.5 per week

■ AAX116 STAGECRAFT

Basic principles of stage production including make-up, stage lighting design and operation; sound recording and operation, costuming for dance including properties of fabric design and construction.

Courses: AA09

Credit Points: 8 Contact Hours: 2 per week

■ AAX117 BALLET TECHNIQUE 1

Designated Unit. The study of ballet technique within the four-tier practical levels system. Principles governing the technique; practical work includes barre work, adagio, pirouettes, allegro, pointe work and pas de deux.

Course: AA09

Credit Points: 8 Contact Hours: 9 per week

■ AAX118 BALLET TECHNIQUE 2

Designated Unit. Continuation of study initiated in AAX117.

Course: AA09

Credit Points: 8 Prerequisite: AAX117
Contact Hours: 7.5 per week

■ AAX119 BALLET TECHNIQUE 3

Designated Unit. Consolidation of technique; study of differing stylistic approaches to the ballet technique through the four-tier levels system.

Course: AA09

Credit Points: 8 Prerequisite: AAX118
Contact Hours: 9 per week

■ AAX120 BALLET TECHNIQUE 4

Designated Unit. Technique classes of advanced standard incorporating difficult exercise combinations, with an emphasis on performance quality and style within the four-tier levels system.

Course: AA09

Credit Points: 8 Prerequisite: AAX119
Contact Hours: 7.5 per week

■ AAX121 CONTEMPORARY TECHNIQUE 1

Designated Unit. The study of contemporary dance techniques within the four-tier levels system. Practical work includes floor work, centre work and basic combinations to develop flexibility, strength and coordination; vocabulary of contemporary dance techniques.

Course: AA09

Credit Points: 8 Contact Hours: 9 per week

■ AAX122 CONTEMPORARY TECHNIQUE 2

Designated Unit. Continuation of study initiated in AAX121.

Course: AA09

Credit Points: 8 Prerequisite: AAX121
Contact Hours: 7.5 per week

■ AAX123 CONTEMPORARY TECHNIQUE 3

Designated Unit. Consolidation of technical knowledge; increased degree of difficulty in turning and jumping sequences; rapid changes of weight and off-balance work within the four-tier levels system.

Course: AA09

Credit Points: 8 Prerequisite: AAX122
Contact Hours: 7.5 per week

■ AAX124 CONTEMPORARY TECHNIQUE 4

Designated Unit. Advanced technique classes incorporating difficult exercise combinations with rapid changes of weight, level, direction; performance quality and style.

Course: AA09

Credit Points: 8 Prerequisite: AAX123
Contact Hours: 7.5 per week

■ ARB001 ARCHITECTURAL DESIGN 1

Introduction to design theory and methodology; design as an integrative process; aesthetic perceptions, graphic/presentation skills. Strategic learning at university. Introductory design exercises: simple elements and small scale urban spaces.

Courses: AR48, BN30

Credit Points: 12 Contact Hours: 8 per week

■ ARB002 ARCHITECTURAL DESIGN 2

Development of design understanding integrating

contextual constraints and technology. Introductory design exercises: simple buildings, spaces and elements.

Courses: AR48, BN30

Credit Points: 12 Prerequisite: ARB001
Contact Hours: 8 per week

■ ARB003 ARCHITECTURAL DESIGN 3

Development of design understanding and ability with emphasis on social and environmental values. Theory and methodology: activity analysis, site analysis, integration of construction and climatic studies. Design projects generally of domestic scale.

Courses: AR48, BN30

Credit Points: 12 Prerequisite: ARB002
Contact Hours: 6 per week

■ ARB004 ARCHITECTURAL DESIGN 4

Development of design understanding and ability with emphasis on social and environmental values. Integration of design theory, sociological issues and technology. Design projects generally of domestic scale.

Courses: AR48, BN30

Credit Points: 12 Prerequisite: ARB003
Contact Hours: 6 per week

■ ARB005 ARCHITECTURAL DESIGN 5

Development of design understanding and ability with emphasis on 'place' and design in social and physical context. Design projects aimed at developing issues of context, landscape, ethics and values and integrating building construction, climatic design and contextual studies. Projects include groups of buildings of medium scale and increasing complexity.

Courses: AR48, BN30

Credit Points: 12 Prerequisite: ARB004
Contact Hours: 6 per week

■ ARB006 ARCHITECTURAL DESIGN 6

Development of design emphases introduced in ARB005. Design projects to develop contextual issues and integrate considerations of climatic design, construction and building services. Projects include groups of buildings of medium scale and increasing complexity.

Courses: AR48, BN30

Credit Points: 12 Prerequisite: ARB005
Contact Hours: 6 per week

■ ARB007 ARCHITECTURAL DESIGN 7

Design projects used to develop theory, critical analysis and issues of architectural quality. Integration of design science, construction, building services, codes and standards. Projects include buildings and building groups of medium to large scale.

Course: AR48

Credit Points: 24 (12 per semester) Prerequisite: ARB006
Contact Hours: 6 per week

■ ARB008 ARCHITECTURAL DESIGN 8

Design projects used to develop individual approach and direction to architecture and to introduce urban design issues. Integration of building economics, services, technology and critical analysis. Projects include large scale civic or commercial developments in an urban context.

Course: AR48

Credit Points: 24 (12 per semester) Prerequisite: ARB007
Contact Hours: 6 per week

■ ARB011 CONTEXTUAL STUDIES 1

Human scale, anthropometry and ergonomics. Introduction to a progressive study of architectural history. Early buildings to nineteenth century.

Courses: AR48, BN30

Credit Points: 6 Contact Hours: 3 per week

■ ARB012 CONTEXTUAL STUDIES 2

Human behaviour; perceptions, learning, interpersonal communication and relationships, decision making, problem solving and stress management. Progressive study of architectural history to nineteenth century.

Courses: AR48, BN30

Credit Points: 8 Prerequisite: ARB011
Contact Hours: 3 per week

■ ARB013 CONTEXTUAL STUDIES 3

Human relationships: role of social and cultural variables in human environment interactions; theory of place; behaviour settings; privacy; personal space; territoriality; environmental meaning and cognition; cognitive maps and way-finding; risk perceptions; environmental stress; environmental evaluations; participatory design processes. Architectural history of the twentieth century; the modern movement; postmodern and recent. Introduction to design methodology; imagining, representing, testing, the VAST lists and an heuristic design model.

Courses: AR48, BN30

Credit Points: 8

Contact Hours: 4 per week

■ ARB014 CONTEXTUAL STUDIES 4

Human organisation, theory of formal organisations, Australian government structures, social analysis and forecasting, social interest groups. History of architecture in the twentieth century, the modern movement, postmodern and recent. Theories, styles and movements in architectural history.

Courses: AR48, BN30

Credit Points: 8

Prerequisite: ARB013

Contact Hours: 4 per week

■ ARB015 CONTEXTUAL STUDIES 5

The periods of Australian architectural development and important individual architects. Urban design theory, townscape, urban spaces, city form.

Courses: AR48, BN30

Credit Points: 8

Contact Hours: 2 per week

■ ARB016 CONTEXTUAL STUDIES 6

The legal system, statutory and common law, contract and tort, acts and regulations concerning the built environment, building codes of Australia. Queensland architectural heritage and contemporary architects. Principles for the analysis of design, factors affecting quality.

Courses: AR48, BN30

Credit Points: 8

Prerequisite: ARB015

Contact Hours: 3 per week

■ ARB017 CONTEXTUAL STUDIES 7

Architectural development in the Far East, Southeast Asia, the Pacific and South America. Planning of settlements, indigenous architecture, materials, techniques and construction, social, cultural and other influences, modernisation, current architectural issues. Theory and methods of critical analysis, critical appraisal of major works and architects, study of ideas and aesthetics.

Courses: AR48, BN30

Credit Points: 6

Contact Hours: 2 per week

■ ARB018 CONTEXTUAL STUDIES 8

Contemporary theories of design and aesthetics; ethics in architectural practice, current issues in architecture, changing roles and attitudes, trends and opportunities.

Courses: AR48, BN30

Credit Points: 6

Contact Hours: 2 per week

■ ARB021 TECHNOLOGY AND SCIENCE 1

Introduction to architectural technology. Properties and behaviour of common building materials. Principles of physics related to building construction. Basic principles of structures.

Courses: AR48, BN30

Credit Points: 8

Contact Hours: 3 per week

■ ARB022 TECHNOLOGY AND SCIENCE 2

Principles of construction related to simple structures, construction systems, chemical properties and reaction of building materials. Introduction to computing in architecture.

Courses: AR48, BN30

Credit Points: 12

Prerequisite: ARB021

Contact Hours: 5 per week

■ ARB023 TECHNOLOGY AND SCIENCE 3

Domestic scale building construction. Principles of structures, climate and sun control.

Courses: AR48, BN30

Credit Points: 12

Prerequisite: ARB022

Contact Hours: 4 per week

■ ARB024 TECHNOLOGY AND SCIENCE 4

Domestic scale building construction, timber structural members and elements, climatic design, ventilation and airflow.

Courses: AR48, BN30

Credit Points: 12

Prerequisite: ARB023

Contact Hours: 4 per week

■ ARB025 TECHNOLOGY AND SCIENCE 5

Steel construction, structures and structural elements, stairs, medium rise construction in reinforced concrete and masonry, hydraulic services, thermal behaviour of buildings.

Courses: AR48, BN30

Credit Points: 12

Prerequisite: ARB024

Contact Hours: 6 per week

■ ARB026 TECHNOLOGY AND SCIENCE 6

Construction systems used in industrial and commercial buildings of medium to high rise. Reinforced concrete structures and structural elements. Curtain walls, acoustic and noise control. Building services and electricity, lifts, air conditioning.

Courses: AR48, BN30

Credit Points: 12

Prerequisite: ARB025

Contact Hours: 5 per week

■ ARB027 TECHNOLOGY AND SCIENCE 7

Complex construction systems, specialised structures, integration of complex services, tall buildings. Case studies of special aspects of architecture technology.

Course: AR48

Credit Points: 6

Prerequisite: ARB026

Contact Hours: 2 per week

■ ARB031 PROFESSIONAL STUDIES 1

Building codes and regulations applied in studio exercises. Estimating, cost control, feasibility, computer software for business. Specifications: role, techniques, practical exercises.

Course: AR48

Credit Points: 16 (8 per semester)

Contact Hours: 3 per week

■ ARB032 PROFESSIONAL STUDIES 2

Practice management, setting up a practice, office systems, marketing. Building economics, finance, cost control, risk management, QA. Building procurement systems. Professional practice, ethics, services, liability, the building contract and contract administration.

Course: AR48

Credit Points: 16 (8 per semester)

Contact Hours: 3 per week

■ ARB033 PROFESSIONAL STUDIES 3

Standard contracts and contract administration. Issues in the profession, changing roles, new legislation.

Course: AR48

Credit Points: 16 (8 per semester)

Contact Hours: 2 per week

■ ARB041 ELECTIVE 1

Elective unit drawn from an existing range of units available within the School and approved by Course Coordinator.

Course: BN30

Credit Points: 6

Contact Hours: 2 per week

■ ARB042 ELECTIVE 2

The Elective unit is drawn from an existing range of units within the School and approved by Course Coordinator.

Course: BN30

Credit Points: 6

Contact Hours: 2 per week

■ ARB043 ELECTIVE 3

Elective unit drawn from an existing range of units available within the Faculty of Built Environment and Engineering or another Faculty at QUT, and approved by the Course Coordinator.

Course: BN30
Credit Points: 6 Contact Hours: 2 per week

■ **ARB044 ELECTIVE 4**

Elective unit drawn from an existing range of units available within the Faculty of Built Environment and Engineering or another Faculty at QUT, and approved by the Course Coordinator.

Course: BN30
Credit Points: 6 Contact Hours: 2 per week

■ **ARB045 ELECTIVE A**

Elective unit drawn from a range presented by the School, available within the Faculty, elsewhere at QUT or external units subject to approval.

Course: AR48
Credit Points: 6 Contact Hours: 2 per week

■ **ARB046 ELECTIVE B**

Elective unit drawn from a range presented by the School, available within the Faculty, elsewhere at QUT or external units subject to approval.

Course: AR48
Credit Points: 6 Contact Hours: 2 per week

■ **ARB047 ELECTIVE C**

Elective unit drawn from a range available within the Faculty, subject to approval.

Course: AR48
Credit Points: 6 Contact Hours: 2 per week

■ **ARB051 RESEARCH METHODS**

An overview of research methodology, examination of differences between research methods and products. Students will undertake a short, directed research project.

Course: AR48
Credit Points: 6 Contact Hours: 2 per week

■ **ARB052 ARCHITECTURAL RESEARCH 1**

The establishment of appropriate research methods and their development into a study proposal for an approved elected research topic. Establishment of objectives, delineation of areas, structuring research program, reading sources, analysis and preliminary conclusions, individual proposals.

Course: AR48 Prerequisite: ARB051
Credit Points: 6 Contact Hours: 2 per week

■ **ARB053 ARCHITECTURAL RESEARCH 2**

Continued development of approved research topic commenced in ARB052. Definition and analysis of propositions, validation by research. Research submission.

Course: AR48 Prerequisite: ARB052
Credit Points: 24 Contact Hours: 6 per week

■ **ARB054 ARCHITECTURAL PROJECT**

A major project selected by the student and approved by the Course Coordinator. By the end of the semester the student should demonstrate through the project the course objectives, expressed as values and attitudes, knowledge and skills.

Course: AR48 Prerequisite: ARB053
Credit Points: 24 Contact Hours: 6 per week

■ **ARB061 ARCHITECTURAL APPLICATIONS 1**

Application of theory and knowledge gained in corequisite units and development of graphic skills in studio exercise.

Course: BN30
Corequisites: ARB001, ARB011, ARB021
Credit Points: 12 Contact Hours: 4 per week

■ **ARB062 ARCHITECTURAL APPLICATIONS 2**

Application of theory and knowledge gained in corequisite units and development of graphic skills in studio exercise

Course: BN30

Corequisites: ARB002, ARB012, ARB022
Credit Points: 8 Contact Hours: 4 per week

■ **ARB063 ARCHITECTURAL APPLICATIONS 3**

Application of theory to architectural problems, with emphasis on architectural technology and science. Studio exercises and site visits.

Course: BN30 Corequisites: ARB003, ARB023
Credit Points: 12 Contact Hours: 4 per week

■ **ARB064 ARCHITECTURAL APPLICATIONS 4**

Application of theory to architectural problems, with emphasis on architectural technology and science. Studio exercises and site visits.

Course: BN30 Corequisites: ARB004, ARB024
Credit Points: 8 Contact Hours: 4 per week

■ **ARB065 ARCHITECTURAL APPLICATIONS 5**

Application of theory to architectural problems, with emphasis on architectural technology and science. Studio exercises and site visits.

Course: BN30 Corequisite: ARB025
Credit Points: 12 Contact Hours: 4 per week

■ **ARB066 ARCHITECTURAL APPLICATIONS 6**

Application of theory to architectural problems, with emphasis on architectural technology and science. Studio exercises and site visits.

Course: BN30 Corequisite: ARB025
Credit Points: 8 Contact Hours: 4 per week

■ **ARB071 ENVIRONMENTAL STUDIES**

The global ecosystem: the atmosphere and its processes, climate, air pollution, water cycles, water pollution, human population and demographic trends, renewable and non-renewable resources, land use, urbanism, the city as an ecosystem, national resource management and conservation.

Course: BN30
Credit Points: 6 Contact Hours: 2 per week

■ **ARB141 THE HUMAN ENVIRONMENT 1**

The dimensions and movement of the human body, and of its perceptual systems, as an essential preliminary to the design of all artefacts for human use. Topics include: static and dynamic anthropometry; human sensory systems; ergonomics; applications of anthropometrics and ergonomics to design.

Course: BN30
Credit Points: 6 Contact Hours: 2 per week

■ **ARB146 INTRODUCTION TO INTERIOR TECHNOLOGY 1**

Basic mechanics and the physical, thermal and optical properties of materials; physics of light, optics, photometry, laser, holograms; thermal properties of materials and components; solar energy and its application; physics of sound, hearing and environmental acoustics; electricity and electrical circuits.

Course: BN30
Credit Points: 6 Contact Hours: 2 per week

■ **ARB147 HISTORY OF THE BUILT ENVIRONMENT 1**

See PSB016.
Course: BN30
Credit Points: 6 Contact Hours: 3 per week

■ **ARB161 LIGHT AND COLOUR STUDIES 1**

Introduction to an understanding of colour, colour vision, colour harmony and contrast, mixing and application of colour. An introduction to a range of contemporary colour theories relating to the use of colour. A further introduction to the study of the qualitative effects of colour and lighting on form and space.

Course: BN30 Corequisite: ARB176
Credit Points: 6 Contact Hours: 3 per week

■ **ARB168 TECHNOLOGY AND SCIENCE 1**

A study of physical principles; introduction to mathematics and applied technologies and how they relate to industrial design.

Course: BN30

Credit Points: 12

Contact Hours: 6

■ **ARB176 INTRODUCTORY INTERIOR DESIGN 1**

Introduction to design theory, methodology, and aesthetic perceptions. Exploring design as an interactive process. Introductory design exercises, simple two and three dimensional elements. Freehand sketching, mechanical drawing, principles of perspective, principles of scale drawing and presentation skills. Unit includes tertiary learning-to-learn process necessary for effective and successful study.

Course: BN30

Credit Points: 18

Corequisite: ARB161

Contact Hours: 9

■ **ARB177 INTRODUCTORY INDUSTRIAL DESIGN 1**

Introduction to basic design principles; three dimensional visual thinking; aesthetic perception; concept development of simple products; perspective drawing and presentation skills; strategic learning at university.

Course: BN30

Credit Points: 18

Proposed hours: 9

■ **ARB185 TECHNOLOGY 2**

Promote understanding and development of a basic knowledge of construction principles; building as a system; loads on buildings; performance of structural units; load beaming and skeletal construction systems.

Course: AR48

Credit Points: 6

Contact Hours: 3 per week

■ **ARB191 THE HUMAN ENVIRONMENT 1**

The dimensions and movement of the human body as a perpetual system for human use; static and dynamic anthropometry; human sensory systems; introduction to ergonomics; applications of anthropometrics and ergonomics to design.

Courses: AR41, AR48, BN30

Credit Points: 4

Contact Hours: 2 per week

■ **ARB192 THE HUMAN ENVIRONMENT 2**

Human needs and the influence of selected interpersonal and physical variables on human behaviour; the characteristics and dynamics of group behaviour, communication process types, and networks; concepts of power, leadership and conflict; observations of behaviour, research methods, interpretation and presentation of research; environmental stressors and their mediation by individual differences.

Courses: AR41, AR48

Credit Points: 4

Contact Hours: 2 per week

■ **ARB193 DESIGN 1**

Design theory: design definition; perception; elements and principles of design; effects of colour, texture, contour, pattern; human dimensions; anthropometrics, elements of aesthetics. Graphics: descriptive geometry; architectural graphics and rendering; freehand drawing and sketching. Design projects: two-dimensional and three-dimensional objects; personal working and living space.

Course: AR41

Credit Points: 8

Contact Hours: 5 per week

■ **ARB194 DESIGN 2**

See ARB193.

Course: AR41

Credit Points: 14

Contact Hours: 7 per week

■ **ARB195 TECHNOLOGY 1**

Materials: manufacture, supply, storage and application

in buildings of timber and wood products, paints and clay products, concrete, ferrous and non-ferrous metals, plastics. Construction: simple, single-storey buildings, footings and floors, wall and roof framing, load bearing masonry, roofing, cladding.

Courses: AR41, AR48

Credit Points: 4

Contact Hours: 2.5 per week

■ **ARB196 TECHNOLOGY 2**

See ARB195.

Courses: AR41, AR48

Credit Points: 6

Contact Hours: 2 per week

■ **ARB197 HISTORY OF ARCHITECTURE & ART 1**

The development of the artificial environment and its relationship to ideas, technology, architecture and the fine arts from the earliest times to the present.

Courses: AR41, AR48

Credit Points: 2

Contact Hours: 1 per week

■ **ARB198 HISTORY OF ARCHITECTURE & ART 2**

See ARB197.

Courses: AR41, AR48

Credit Points: 2

Contact Hours: 1 per week

■ **ARB199 TECHNOLOGY 1**

See ARB195.

Courses: AR41, BN30

Credit Points: 8

Contact Hours: 4 per week

■ **ARB241 HISTORY OF THE BUILT ENVIRONMENT 2**

A continuation of ARB197. History of the following from circa 1600 AD: ideas, art, and two of the following (one of which must be the student's major discipline): town and country planning, landscape architecture, architecture, interior and industrial design.

Course: BN30

Credit Points: 6

Contact Hours: 3 per week

■ **ARB242 TECHNOLOGY 2**

See ARB195.

Course: BN30

Credit Points: 14

Contact Hours: 5 per week

■ **ARB246 INTRODUCTION TO INTERIOR TECHNOLOGY 2**

Structural systems of domestic building construction; chemical characteristics of materials and finishes including timber/wood products, cement and concrete, ceramics, glass, polymers and metals; manufacturing process and performance. Measurement and recording of building spaces. Photography and photogrammetry. Application of recorded information.

Course: BN30

Credit Points: 12

Corequisite: ARB248

Contact Hours: 5 per week

■ **ARB249 THE HUMAN ENVIRONMENT 2**

See PLB201.

Course: BN30

Credit Points: 6

Contact Hours: 2 per week

■ **ARB251 ERGONOMICS FOR INDUSTRIAL DESIGNERS 1**

Psychomotor skills; human information processing; human-machine interfaces; displays, controls, and tools; human-machine system properties; feedback and controls; workplace design; noise; stress; vibration; legal aspect; safety and product liability. Practical exercises in product design.

Course: BN30

Credit Points: 6

Contact Hours: 2 per week

■ **ARB267 LIGHT AND COLOUR STUDIES**

A further investigation of the relevance of colour theories, and the relevance and use of colour in interior de-

sign. It deals with the understanding of the symbolic, physiological and psychological aspects of colour, within historical and contemporary contexts.

Course: BN30 **Corequisite:** ARB276
Credit Points: 6 **Contact Hours:** 3

■ **ARB268 TECHNOLOGY AND SCIENCE 2**

Introduction to chemical properties of materials; data collection analysis and statistics and relevant to industrial design.

Course: BN30 **Contact Hours:** 6
Credit Points: 12

■ **ARB276 INTRODUCTORY INTERIOR DESIGN 2**

A further introduction to design theory, methodology and perception. To demonstrate the application of environmental issues; refine awareness and understanding by working collaboratively with people in designing three-dimensional spaces to suit their needs. Continuation of mechanical and freehand drawing presentation and development of written and verbal skills.

Course: BN30 **Prerequisite:** ARB176
Corequisite: ARB261

Credit Points: 18 **Contact Hours:** 9

■ **ARB277 INTRODUCTORY INDUSTRIAL DESIGN 2**

Continuation of ARB177; studio work involving three-dimensional design tasks of a variety of scales; workshop and field teaching; techniques of oral and written presentation of schemes to audience; report writing; use of English as applicable to the professional needs.

Course: BN30 **Contact Hours:** 9
Credit Points: 18

■ **ARB288 DESIGN SCIENCE 2**

Basic design for hot humid climates, principles governing air flow through and around buildings and space. Natural ventilation; air flow in cities. Testing of air flow through and around models. Basic design for hot arid climates and cold climates; macro and micro climatic conditions and their evaluation for design; manual and computerised climatic evaluation.

Courses: AR41, AR48, BN30
Credit Points: 2 **Contact Hours:** 1 per week

■ **ARB289 DESIGN SCIENCE 1**

The principles of science and their implications for the design of buildings and spaces; the application of these in the conceptual stages of design, laboratory tests and computer evaluations of proposals. Quantity and quality of light; day lighting in buildings; manual and computerised projection of solar shadows. Testing of models on heliodon and artificial sky.

Courses: AR41, AR48, BN30
Credit Points: 2 **Contact Hours:** 1 per week

■ **ARB290 INTRODUCTION TO COMPUTING 2**

Computer as tool for drafting; line graphics; plotting, symbol libraries; dimensioning; computer drafting and office organisation; comparison of available software packages.

Courses: AR41, AR48, BN30
Credit Points: 2 **Contact Hours:** 1 per week

■ **ARB291 THE HUMAN ENVIRONMENT 3**

The social and cultural development of Australian urban environments, local built environments; study of human functioning in urban environments, privacy, personal space, territoriality, environmental meaning and cognition, cognitive maps and wayfinding, intercultural and intracultural differences. Application via examination and analysis of an urban environment with respect to its socio-cultural function.

Courses: AR41, AR48, BN30

Credit Points: 6 **Contact Hours:** 2 per week

■ **ARB292 THE HUMAN ENVIRONMENT 4**

The interaction of formal organisations and institutions, especially the organisation of work and government and the built environment; small group theory and the effective group; work and motivation. Management style and bureaucracy, its character and influence; social analysis and social forecasting; social interest groups in a pluralist society; mechanisms and processes of compromise; Australia's government system as relating to public policy and the electoral system; modern society and the individual.

Courses: AR41, AR48, BN30
Credit Points: 6 **Contact Hours:** 2 per week

■ **ARB293 DESIGN 3**

Theory: scope of design; Reitman's State Transformation model, problem-solving methods; precedence diagrams; testing; general design heuristic; the art of design. Planning objectives and techniques, privacy and convenience, intelligibility, forms and order, history of planning techniques, the vertical dimension, safety, external constraints. Architectural projects: single-storey to low-rise buildings of domestic or semi-domestic nature. Graphics: use of media for presentation of architectural projects; use of colour, shade, shadow in architectural drawings; three-dimensional presentation and modelling.

Course: AR41
Credit Points: 10 **Contact Hours:** 5 per week

■ **ARB294 DESIGN 4**

See ARB293.
Course: AR41
Credit Points: 8 **Contact Hours:** 4 per week

■ **ARB295 BUILDING CONSTRUCTION 1**

Building construction of domestic and semi-domestic buildings with upper floors, excavation, retaining walls, culverts, site and soil investigations, footings, frames and load bearing walls, construction of low-rise buildings, roofing of medium and large spans; environmental factors, building defects and remedies.

Courses: AR41, AR48
Credit Points: 4 **Contact Hours:** 2 per week

■ **ARB296 BUILDING CONSTRUCTION 2**

See ARB295.
Courses: AR41, AR48
Credit Points: 4 **Contact Hours:** 2 per week

■ **ARB299 INTRODUCTION TO COMPUTING 1**

The computer as a tool; introduction to microcomputer hardware and software; architectural application overview, specialised graphics hardware, files, computer access and operating systems; simple computer graphics production symbols, colour control, printer control, transformation and deformation.

Courses: AR41, AR48, BN30
Credit Points: 2 **Contact Hours:** 1 per week

■ **ARB340 ARCHITECTURAL DESIGN 1**

Theory: concepts of design process; systematic methodology in architectural design. Studio: developing skills in site surveys, adjacency analysis, brief formation, application of architectural science; safety, comfort, construction, content, form and order.

Courses: AR48, BN30 **Prerequisite:** ARB248
Credit Points: 18 **Contact Hours:** 7 per week

■ **ARB341 BUILDING CONSTRUCTION 1**

Introduction to common building materials, their properties and behaviour in use; the building as a system; elements of the small building and their function in the building system. Studio work will consist of exercises

in construction drawing related to the lecture topics. Lectures and studio work are complemented by site visits and workshop practice.

Course: BN30

Credit Points: 16 Contact Hours: 6 per week

■ **ARB343 VISUAL COMMUNICATION FOR ARCHITECTS 1**

Introduction to presenting architectural works using manual skills and computer techniques.

Course: BN30

Credit Points: 4 Contact Hours: 2 per week

■ **ARB350 INDUSTRIAL DESIGN 1**

Scope of problem solving theory; special characteristics of design problems; the task environment, design heuristics; creativity and innovation and general psychological theories of creativity; case studies; visual communication and design process. The studio exercises to which most of the time is devoted are aimed at a range of different product designs. The complexity and depth of the design project will increase systematically during the semester.

Course: BN30

Prerequisite: ARB248

Credit Points: 18 Contact Hours: 8 per week

■ **ARB351 ERGONOMICS FOR INDUSTRIAL DESIGNERS 2**

Person-machine system models; human capabilities; hearing and signal detection theory; vision; and user modelling. Practical exercises cover application of lecture topics to product design.

Course: BN30

Prerequisite: ARB251

Credit Points: 6 Contact Hours: 2 per week

■ **ARB353 MANUFACTURING TECHNOLOGY 1**

Metals, glass, wood, ceramics and plastics technologies: the relation between the properties of materials and the industrial processes available for their fabrication. Application of the study of materials and their fabrication to design problems in studio exercises. Introduction of computers (CAD).

Course: BN30

Credit Points: 12 Contact Hours: 6 per week

■ **ARB354 COMPUTER-AIDED INDUSTRIAL DESIGN 1**

PC computer operation, introduction to using Windows, overview of use of graphics and CAD by industrial designers in the design process. Application of CAD for engineering drawings and as a 2D presentation tool. Introduction to 3D wireframe modelling concepts.

Course: BN30

Credit Points: 6 Contact Hours: 2 per week

■ **ARB360 INTERIOR DESIGN 1**

Scope of problem-solving theory; special characteristics of design problems; the task environment; the problem space, the solution space and their representation; problem difficulty, recognition and algorithmic methods; generate-and-test methods; heuristics; creativity and innovation. The theoretical base also encompasses theories of and development in art, design and perception. The studio exercises are aimed at a range of interior design problems within the specific boundaries to focus on the systematic process of design and questioning the environmental implication of these processes with emphasis on contextuality and symbolism. These problems historically demand attention for interior design. To extend presentation methods, techniques and materials used to communicate design ideas.

Course: BN30

Prerequisite: ARB248

Corequisite: ARB361

Credit Points: 18 Contact Hours: 8

■ **ARB361 INTERIOR TECHNOLOGY 1**

Upgrades the technical drawing skills developed in ARB261 and introduces students to the building codes and by-laws regulating the design and construction of building interiors at the domestic level; issues such as the evolution of building materials and the evaluation of material performance and suitability.

Course: BN30

Prerequisite: ARB246

Corequisite: ARB360

Credit Points: 12 Contact Hours: 6 per week

■ **ARB362 FURNITURE & FITTINGS 1**

Fabrics and textiles in interior design; wall to wall carpeting; curtains and blinds; upholstery; in each case materials, properties and techniques are discussed; fabrics and textiles in interior design.

Course: BN30

Credit Points: 6 Contact Hours: 2 per week

■ **ARB363 VISUAL COMMUNICATION FOR INTERIOR DESIGNERS 1**

Visual thinking and drawing and basic rendering skills; rough mock-ups and scale model making.

Course: BN30

Prerequisite: ARB248

Credit Points: 4 Contact Hours: 2 per week

■ **ARB388 DESIGN SCIENCE 4**

The control of noise and aural conditions in buildings; basic acoustic design and noise control in buildings. Electrical lighting of interiors, lamp characteristics, colour rendering, modelling, lighting quality, simplified lighting design methods, external lighting.

Courses: AR41, BN30

Credit Points: 2 Contact Hours: 1 per week

■ **ARB389 DESIGN SCIENCE 3**

Thermal performance of buildings; energy conservation and low energy design; calculation of heat flow and indoor temperatures under steady state and fluctuating conditions; quantitative monitoring of thermal performance of building elements. Computer-aided planning analysis and environmental control analysis; integration with design.

Courses: AR41, BN30

Credit Points: 4 Contact Hours: 2 per week

■ **ARB391 BUILDING SERVICES 1**

Hydraulics: water; gas; plumbing; drainage and sewerage in domestic and low-rise buildings. Fire services; sprinklers; alarms; extinguishers; emergency systems.

Courses: AR41, BN30

Credit Points: 4 Contact Hours: 1.5 per week

■ **ARB392 BUILDING SERVICES 2**

Electricity: supply and transmission systems; substations; metering; reticulation. Vertical transportation; lifts; escalatory hoists. Air-conditioning; refrigeration cycle, principles of air-conditioning, equipment components, domestic and commercial systems; approximate sizing of plant rooms and ductwork; cooling load estimate; choice of systems.

Courses: AR41, AR48, BN30

Credit Points: 3 Contact Hours: 1.5 per week

■ **ARB393 DESIGN 5**

Theory: the building as object, surface, volume, space and sequence; expression of building; criteria of good design in terms of style, function, form, structure, services, context, environment, society, and other relevant issues; design ethics and values. Projects: low to medium rise with emphasis on industry and commerce; integration with architectural science; flow charting; building type analysis.

Course: AR41

Credit Points: 8 Contact Hours: 4 per week

■ **ARB394 DESIGN 6**
See ARB393.
Course: AR41
Credit Points: 8 Contact Hours: 4 per week

■ **ARB395 BUILDING CONSTRUCTION 3**
Site investigations, earth and rock retaining systems, foundations including piles, bored piers and rafts, underpinning and shoring, medium-rise masonry construction, structural steel concrete and composite structures, service cores, precast concrete, prestressed concrete; systems for floors, roofs, external cladding, partitions, ceilings; waterproofing, corrosion protection, fireproofing; building failures.
Courses: AR41, AR48
Credit Points: 3 Contact Hours: 1.5 per week

■ **ARB396 BUILDING CONSTRUCTION 4**
See ARB395.
Courses: AR41, AR48
Credit Points: 3 Contact Hours: 1.5 per week

■ **ARB440 ARCHITECTURAL DESIGN 2**
Theory: concepts of design process; systematic methodology in architectural design. Studio: developing skills in site surveys, adjacency analysis, brief formation, application of architectural science to inculcate concerns for safety, comfort, construction, content, form and order.
Courses: AR41, AR48, BN30 Prerequisite: ARB340
Credit Points: 16 Contact Hours: 6 per week

■ **ARB441 BUILDING CONSTRUCTION 2**
Case studies with lectures and studio work. Each case study will discuss the system characteristics of the problem, the human and environmental factors involved, and the technical systems required. Lectures and studio work are complemented by field studies and workshop practice.
Course: BN30 Prerequisite: ARB341
Credit Points: 16 Contact Hours: 6 per week

■ **ARB443 VISUAL COMMUNICATION FOR ARCHITECTS 2**
Development of skills in various techniques for presenting architectural designs. Includes rendering and presentation techniques, audiovisual media, model making and portfolio organisation. The use of manual skills and computer techniques is studied.
Course: BN30
Credit Points: 4 Contact Hours: 2 per week

■ **ARB450 INDUSTRIAL DESIGN 2**
Design methodologies; process; creativity and product innovation; case studies; environmental impact. The studio exercises are aimed at different product ranges. The complexity of the project increases according to the semester level.
Course: BN30 Prerequisite: ARB350
Credit Points: 18 Contact Hours: 8 per week

■ **ARB453 MANUFACTURING TECHNOLOGY 2**
Application of engineering mechanisms to products or systems; the performances of mechanical, electrical, hydraulic and pneumatic mechanisms in relation to particular functions; introduction to electronics; design problems in studio using CAD.
Course: BN30 Prerequisite: ARB353
Credit Points: 12 Contact Hours: 6 per week

■ **ARB454 COMPUTER-AIDED INDUSTRIAL DESIGN 2**
Introduction to 3D Solid modelling concepts, 3D spatial relationships, design documentation, 3D model to 2D engineering drawings and development of skills in the use of CAD for engineering drawings. Design presentation.

Course: BN30 Prerequisite: ARB354
Credit Points: 6 Contact Hours: 2 per week

■ **ARB457 ELECTIVE 1**
Elective Unit drawn from a range presented by the School and approved by the Course Coordinator.
Course: BN30
Credit Points: 6 Contact Hours: 2 per week

■ **ARB460 INTERIOR DESIGN 2**
Development of design understanding and processes in order to facilitate the capacity for application of available technologies and philosophies, consistent with encouragement of individual freedom in the forging of intrinsic and innovatory approaches in seeking design solutions; to introduce the development of a rigorous and systematic methodology in the design process; to concentrate attention on problems with specific interior design parameters; and to foster an appreciation of design as a capability of human beings. Integrated with this is the introduction of information retrieval skills, using the library and other information services; and assessing, organising and evaluating information. Continues to expose students to a variety of presentation techniques and materials needed to communicate design solutions.
Course: BN30 Prerequisite: ARB360
Corequisite: ARB461
Credit Points: 18 Contact Hours: 8 per week

■ **ARB461 INTERIOR TECHNOLOGY 2**
Industrialised interior finishes and construction of joinery and fittings and their interaction with the building shell and services. The notions of interior maintenance and life span economics are introduced.
Course: BN30 Prerequisite: ARB361
Corequisite: ARB460
Credit Points: 12 Contact Hours: 6 per week

■ **ARB462 FURNITURE & FITTINGS 2**
The manufacture, assembly and fabrication of furniture, fittings and components; expected performance of materials and furniture items, focuses on functional, maintenance, life span, economic properties.
Course: BN30 Prerequisite: ARB362
Credit Points: 6 Contact Hours: 2 per week

■ **ARB464 ARCHITECTURAL INTERIOR SYSTEMS 1**
Lighting and acoustic considerations, human sensory and behavioural needs. An outline of systems and guidelines for selection and professional judgment.
Course: BN30 Prerequisite: ARB361
Credit Points: 4 Contact Hours: 2 per week

■ **ARB480 DESIGN 7**
See ARB493.
Course: AR48
Credit Points: 32 Contact Hours: 5 per week

■ **ARB481 PROFESSIONAL STUDIES 1**
See ARB495.
Course: AR48
Credit Points: 12 Contact Hours: 3 per week

■ **ARB491 HISTORY OF ARCHITECTURE & ART 3**
Early Australian colonial architecture; Victorian Australia; gothic and classical revival in Australia; the Australian house; modern architecture in Australia; conservation and preservation; Australian landscape and its influence in architecture.
Courses: AR41, AR48
Credit Points: 4 Contact Hours: 1 per week

■ **ARB493 DESIGN 7**
Theory: masters of the twentieth century in Europe and the USA; their architectural styles, design philosophies and influence; architects in Australia and their influ-

ence on Australasian architecture. Projects: brief, design, construction, services and landscape; a series of architectural projects of medium to high-rise construction; emphasis on workability and compliance with codes, by-laws and regulations.

Course: AR41

Credit Points: 20 (10 per semester)

Contact Hours: 5 per week

■ ARB495 PROFESSIONAL STUDIES 1

Specifications; estimates; cost planning and control; codes; standards; building legislation; computing.

Course: AR41

Credit Points: 16 (8 per semester)

Contact Hours: 4 per week

■ ARB497 ADVANCED TECHNOLOGY

Mechanisation of construction; construction machinery; excavation; piling; deep basement construction; high-rise construction systems; steel, reinforced concrete and pre-stressed concrete; framing; walling and flooring. Special services; energy management and maintenance systems; automated building systems; integration of design, structures, services and construction; decision making and choice of constructional methods and procedure. Prefabrication. Case studies.

Courses: AR41, AR48

Credit Points: 8 (4 per semester)

Contact Hours: 2 per week

■ ARB540 ARCHITECTURAL DESIGN 3

Theory: the building as object, surface, volume, space and sequence; expression of buildings; criteria of good design; design ethics and values. Studio: to develop ethics in design and to apply aesthetic theories in architectural projects, a series of architectural projects of low to medium use with emphasis on industry and commerce.

Courses: AR48, BN30

Prerequisite: ARB440

Credit Points: 18

Contact Hours: 6 per week

■ ARB541 BUILDING CONSTRUCTION 3

Studies will review the construction of non-domestic buildings of intermediate size. Each case study will discuss the system characteristics of the building type, the human and environmental factors which constrain the solution, and the associated building systems. Studio work is complemented by field work.

Course: BN30

Prerequisite: ARB441

Credit Points: 17

Contact Hours: 6.5 per week

■ ARB544 LANDSCAPE ARCHITECTURE IN THE BUILT ENVIRONMENT

Principles and development of landscape architecture, application in architectural design, effect in the conservation and enhancement of the environment, landscape architect's role in architectural practice.

Courses: AR41, BN30

Credit Points: 2

Contact Hours: 1 per week

■ ARB550 INDUSTRIAL DESIGN 3

Product design in depth. The projects are cross-referenced with other subject areas which will provide an integration of knowledge and skills acquired in the previous semesters. During the design projects, different specialist expertise is included. Lectures cover: case studies; design innovation; design methods.

Course: BN30

Prerequisite: ARB450

Credit Points: 18

Contact Hours: 8 per week

■ ARB553 MANUFACTURING TECHNOLOGY 3

Production techniques in relation to different materials, various methods for different finishing operations, various methods for forming, automatic and semi-automatic assembly and quality control methods; production cost. Field studies include visits to manufacturing industries. The application of production techniques in studio de-

sign projects using CAD.

Course: BN30

Prerequisite: ARB453

Credit Points: 12

Contact Hours: 5 per week

■ ARB554 COMPUTER-AIDED INDUSTRIAL DESIGN 3

Introduction to simple 3D Surface modelling concepts, introduction to shading, development of these skills for product form evaluations. Development of the use of 3D CAD skills for production of advanced 2D engineering drawings.

Course: BN30

Prerequisite: ARB454

Credit Points: 6

Contact Hours: 2 per week

■ ARB556 PRODUCT ANALYSIS & DEVELOPMENT

Case studies on success and failure of industrial/product design; sources for new product development; system for total design product planning; product status, marketing and process of total design management.

Course: BN30

Credit Points: 6

Contact Hours: 2 per week

■ ARB557 ELECTIVE 2

Elective Unit drawn from a range presented by the School, Faculty, other Faculties at QUT, and approved by the Course Coordinator.

Course: BN30

Credit Points: 6

Contact Hours: 2 per week

■ ARB560 INTERIOR DESIGN 3

Students develop their knowledge of systematic interior design processes and apply knowledge gained in support and corequisite units. Application of the physical and cultural context as well as psychological and sociological needs of the end user. Visual and oral communication techniques employed in the production of design presentations to clients.

Course: BN30

Prerequisite: ARB460

Corequisite: ARB561

Credit Points: 18

Contact Hours: 7 per week

■ ARB561 INTERIOR TECHNOLOGY 3

Continuation of ARB461; emphasis on commercial construction systems and the impact of regulations; high-rise buildings, the planning of tennacles, partitioning and furniture systems, shopping centres, theatres, medical clinics, taverns, restaurants.

Course: BN30

Prerequisite: ARB461

Corequisite: ARB560

Credit Points: 12

Contact Hours: 6 per week

■ ARB562 FURNITURE & FITTINGS 3

Principles of ornamental design; decorative metalwork; stained glass; decorative ceramics; plasterwork; carved and inlaid woodwork; lacquer work; printed fabrics and papers; tapestry and embroidery.

Course: BN30

Prerequisite: ARB462

Credit Points: 6

Contact Hours: 2 per week

■ ARB580 DESIGN 8

See ARB593.

Course: AR48

Credit Points: 36

Contact Hours: 6 per week

■ ARB590 ELECTIVE 1A

Selected architectural topics including history, conservation, design theory, management, finance, economics, architectural science, computing, urban design, and courses where approved.

Courses: AR41, AR48

Credit Points: 4

Contact Hours: 2 per week

■ ARB591 HISTORY OF ARCHITECTURE & ART 4

A global perspective of the development of art and architecture of regional interest with particular emphasis

on non-European traditions. Architectural development in the Far East, Southeast Asia, the Pacific and South America. Planning of settlements, indigenous architecture, materials and techniques in building construction, social, cultural, economic, religious, and Western influence. Modernisation, current architecture issues.
Courses: AR41, AR48
Credit Points: 4 **Contact Hours:** 1 per week

■ **ARB593 DESIGN 8**

Architectural criticism; main themes selected for design and the realisation, convenience, clarity, intelligibility, expression, technology, context form. Post-occupancy evaluation. Testing methodology; analysis and evaluation of building performance, user-oriented design. A series of architectural projects of medium to high-rise buildings involving general building briefs and programs, environmental impact issues, and post-occupancy analysis.
Courses: AR41
Credit Points: 20 (10 per semester)
Contact Hours: 5 per week

■ **ARB595 PROFESSIONAL STUDIES 2**

Building economics; practice management and accounting systems; legal aspects of practice, contracts; building procurement systems.
Courses: AR41, AR48
Credit Points: 16 (8 per semester)
Contact Hours: 4 per week

■ **ARB598 ELECTIVE 1B**

See ARB590.
Courses: AR41, AR48
Credit Points: 4 **Contact Hours:** 2 per week

■ **ARB640 ARCHITECTURAL DESIGN 4**

Theory: the building as object, surface, volume, space and sequence; expression of buildings; criteria of good design; design ethics and values. Studio: to develop ethics in design and to apply aesthetic theories in architectural projects. A series of architectural projects of low to medium use with emphasis on industry and commerce.
Courses: AR48, BN30 **Prerequisite:** ARB540
Credit Points: 18 **Contact Hours:** 6 per week

■ **ARB641 BUILDING CONSTRUCTION 4**

Reviews the construction of non-domestic buildings of intermediate size. Each case study will discuss the system characteristics of the building type, the human and environmental factors which constrain the solution, and the associated building systems. Studio work is complemented by field work.
Courses: BN30 **Prerequisite:** ARB541
Credit Points: 17 **Contact Hours:** 6.5 per week

■ **ARB646 LAW OF THE BUILT ENVIRONMENT**

The law as a constraint in the design and construction process. Australian and Queensland acts, by-laws and regulations of statutory authorities as they affect the built environment. Legal aspects of land and land transfer. Introduction to professional liability, design registration, patents and copyrights.
Courses: AR41, AR48, BN30
Credit Points: 6 **Contact Hours:** 2 per week

■ **ARB647 ARCHITECTURAL RESEARCH 2**

Studies on approved topics to sufficient depth to demonstrate the student's ability to define and logically analyse proposition, and to conduct research to prove its validity.
Courses: AR41, AR48
Credit Points: 24 **Contact Hours:** 6 per week

■ **ARB650 INDUSTRIAL DESIGN 4**

Design studio projects: there are usually two projects

per semester and they are done in depth. The interdisciplinary expertise is included when appropriate. Most of the projects are industry based. Lectures include: case studies, design innovation and design methods.
Course: BN30 **Prerequisite:** ARB550
Credit Points: 18 **Contact Hours:** 8 per week

■ **ARB653 MANUFACTURING TECHNOLOGY 4**

Organisation, planning the technologies required for CIM (Computer-Integrated Manufacturing). The impact of CIM on product design solutions. Field studies complement the lecture series. Studio exercises will utilise computer applications.
Course: BN30 **Prerequisite:** ARB553
Credit Points: 12 **Contact Hours:** 5 per week

■ **ARB654 COMPUTER-AIDED INDUSTRIAL DESIGN 4**

Development of skills in complex 3D Surface modelling techniques, application in design form evaluations and form refinement. Further development of shading techniques and introduction to animation. Advanced design documentation.
Course: BN30 **Prerequisite:** ARB554
Credit Points: 6 **Contact Hours:** 2 per week

■ **ARB657 ELECTIVE 3**

Elective Unit drawn from a range presented by the School, Faculty or other Faculties at QUT and approved by the Course Coordinator.
Course: BN30
Credit Points: 6 **Contact Hours:** 2 per week

■ **ARB660 INTERIOR DESIGN 4**

Students select and develop a complex design problem from brief stage to developed design studio stage, taking into consideration the content and the needs of the end user. Theory studies are cross-referenced to studio projects and exercises. Visual and oral communication techniques for design presentations to clients.
Course: BN30 **Prerequisite:** ARB560
Corequisites: ARB661, ARB663
Credit Points: 18 **Contact Hours:** 7 per week

■ **ARB661 INTERIOR TECHNOLOGY 4**

The technological assessment of interiors, structure, openings, environmental systems, artefacts and ambience of existing spaces; tendering, consultants, leasing and tenancy-building interface.
Course: BN30 **Prerequisite:** ARB561
Corequisite: ARB660
Credit Points: 12 **Contact Hours:** 6 per week

■ **ARB662 FURNITURE & FITTINGS 4**

The development of a methodical approach to the choice of loose furniture, furniture systems and interior products; quantitative and qualitative assessment approaches; the understanding of furniture design and its integration into interiors.
Course: BN30 **Prerequisite:** ARB562
Credit Points: 6 **Contact Hours:** 2 per week

■ **ARB663 RESEARCH METHODS**

An overview of research methodology; differences between various research methods and products.
Courses: AR48, BN30 **Corequisite:** ARB660
Credit Points: 6 **Contact Hours:** 2 per week

■ **ARB664 ARCHITECTURAL RESEARCH 1**

Establishment of objectives; delimitation of relevant areas; structuring the research program; identification of background reading sources; analysis and preliminary conclusions regarding the proposed field of study; preparation of an individual proposal.
Courses: AR48, BN30
Credit Points: 4 **Contact Hours:** 2 per week

■ **ARB681 PROFESSIONAL STUDIES 3**

See ARB695.

Course: AR48

Credit Points: 16 Contact Hours: 2 per week

■ **ARB690 ARCHITECTURAL PROJECT**

See ARB693.

Course: AR48

Credit Points: 12 Contact Hours: 6 per week

■ **ARB693 DESIGN 9**

Theory; contemporary architects' theories and ideas, their influence in architectural design and practice. Projects: process of brief, functional and space programming; urban values, design principles and landscape-townscape, civic and formal planning; urban quality. A comprehensive project of groups of complex buildings as a design vehicle to develop planning skills; brief formation; building programming; quality evaluation; planning and presentation.

Course: AR41

Credit Points: 16 Contact Hours: 5 per week

■ **ARB695 PROFESSIONAL STUDIES 3**

Alternative methods of building procurement; management of all phases of the building project. The Architect Act 1962 and amendments; Board of Architects Queensland Practice Examination.

Course: AR41

Credit Points: 8 (4 per semester)

Contact Hours: 2 per week

■ **ARB697 ELECTIVE 2**

Studies on approved topics to sufficient depth to demonstrate the student's ability to define and to logically analyse a proposition, and to conduct research to prove its validity.

Course: AR41

Credit Points: Semester 1: 4; Semester 2: 20

Contact Hours: Semester 1: 2 per week; Semester 2: 5 per week

■ **ARB795 APPROVED EMPLOYMENT A**

See course requirements and notes relating to undergraduate courses – industrial experience for Bachelor of Architecture.

Course: AR48

Credit Points: 36

Contact Hours: 48 recognised weeks within first three years

■ **ARB796 APPROVED EMPLOYMENT B**

See course requirements and notes relating to undergraduate courses industrial experience for Bachelor of Architecture.

Course: AR48

Credit Points: 60

Contact Hours: 72 recognised weeks within second three years

■ **ARP154 ARCHITECTURAL COST PLANNING**

Sectors of the property market; financial feasibility studies; project financing; project cost control; life cycle costing; energy audits; maintaining property asset value; investment decision-making; facilities management; forecast for property markets.

Course: AR80

Credit Points: 12 Contact Hours: 2 per week

■ **ARP502 ADVANCED INTERIOR DESIGN 1**

Exploration of contemporary ideas, theories, methods; practical application of research, analysis, evaluation and the synthesis of ideas related to interiors; contemporary issues in user-oriented design; the development of advanced information retrieval skills; main topics in this AIRS program are: using the QUT library and other information services; accessing information through indexes and abstracts; computerised information retrieval;

current awareness strategies; organising and evaluating information.

Course: AR62

Credit Points: 18 Contact Hours: 6 per week

■ **ARP503 ADVANCED INTERIOR DESIGN 2**

The issues of environmental communications; the physiological, psychological and sociological aspects of workplace interiors.

Course: AR62

Credit Points: 18 Contact Hours: 6 per week

■ **ARP508 PROFESSIONAL STUDIES 1**

The role and responsibilities of the interior designer in professional practice; job administration, liability, copyright, designer and client relationships; communication management and organisation of a project. The fundamentals of task scheduling; planning systems and control models; program evaluation and review techniques; critical path monitoring; organisational developments; recruitment staffing structures; concepts of marketing related to the profession. Explores the fundamentals of brief development and its implications for design efficiency and effectiveness; the nature of design; problem definition; brief development – a traditional view; brief development – an evolutionary view; participatory design; decision-making and the organisational structure; setting up the information network; information gathering and recording; developing a client structure; and design process and problem type.

Course: AR62

Credit Points: 18 Contact Hours: 6 per week

■ **ARP601 SETTING THE SCENE**

Incorporates a series of case studies of significant film and theatre sets; students explore the influence of design on emotive behaviour and interpret the implication of this for interior design of a more conventional kind; use is made of the current projects in the unit Environmental Communications.

Course: AR62

Credit Points: 10 Contact Hours: 3 per week

■ **ARP604 CONSERVATION OF HISTORIC INTERIORS**

The ethics and the role of the designer in the conservation of interiors. An introduction to building technologies as required by a practising designer working on conservation and restoration projects.

Course: AR62

Credit Points: 18 Contact Hours: 6 per week

■ **ARP605 PROFESSIONAL STUDIES 2**

Strategies for evaluation of building interior physical characteristics and user responses to utilisation of such areas from technical, sociological and psychological perspectives; students assess existing sites to foster an appreciation of client and user requirements, compilation of strategies and reports, statistical analysis and application of data.

Course: AR62

Credit Points: 6 Contact Hours: 2 per week

■ **ARP606 ELECTIVE 1**

A selected and approved course of study within the School or elsewhere within the University which enables students to deepen their knowledge in particular areas of interior design. All Electives undertaken shall have the prior approval of the Course Coordinator. No special timetabling arrangements will be made to cater for Electives.

Course: AR62

Credit Points: 6 Contact Hours: 2 per week

■ **ARP607 ELECTIVE 2**

A selected and approved course of study within the

School or elsewhere within the University which enables students to deepen their knowledge in particular areas of interior design. All Electives undertaken shall have the prior approval of the Course Coordinator. No special timetabling arrangements will be made to cater for Electives.

Course: AR62
Credit Points: 6 **Contact Hours:** 2 per week

■ **ARP608 THEORY AND CRITICISM**

The unit addresses contemporary theories of design and aesthetics and current issues in order to develop a critical understanding of the profession. The unit will incorporate a series of case studies of significant film and theatre designs. In undertaking the case studies students will be required to explore the influence of design on emotive behaviour and to interpret the implication of this for interior design of a more conventional kind.

Course: AR62
Credit Points: 6 **Contact Hours:** 2 per week

■ **ARP613 ADVANCED ERGONOMICS 1**

Human-machine systems and their relations with living and working environments; the importance of ergonomics (human factors) criteria and their application to industrial design. The course consists of series of seminars relevant to case studies concerned. Typical case studies are concentrated on the ergonomic evaluation of consumer products.

Course: AR61
Credit Points: 6 **Contact Hours:** 2 per week

■ **ARP623 ADVANCED ERGONOMICS 2**

Systematic ergonomic evaluation methods and their application to design problems. Lectures and seminars relevant to case studies on the ergonomic evaluation of the working and living environment, e.g. key-punch operator work station, bus driver work station and ergonomic evaluation of an assembly line.

Course: AR61 **Prerequisite:** ARP613
Credit Points: 6 **Contact Hours:** 2 per week

■ **ARP652 DESIGN MANAGEMENT & DECISION THEORY**

Meaning of the design process, control and the design process, complexity of design problems, types of contracts, design and business, project team, design responsibility, management, documentation, concept of evaluation and management action, application of design theory to design management.

Course: AR61
Credit Points: 2 **Contact Hours:** 1 per week

■ **ARP653 PROFESSIONAL PRACTICE**

The role and responsibilities of the industrial designer in professional practice; job administration, liability, design protection, designer and client relationships.

Course: AR61
Credit Points: 2 **Contact Hours:** 1 per week

■ **ARP654 PROFESSIONAL PRACTICE AND MANAGEMENT**

A series of lectures and seminars exploring the role of professional practice management. Lectures include: meaning of design process, control and the design process, complexity of design problems, type of contracts, design management, design documentation, concept of design evaluation and management, role administration, liability, design protection, designer-client relationships.

Course: AR61
Credit Points: 6 **Contact Hours:** 2 per week

■ **ARP670 ELECTIVE A**

Elective Unit drawn from a range presented by the School, available within the Faculty, elsewhere at QUT

or external unit subject to Course Coordinator's approval.
Course: AR61

Credit Points: 6 **Contact Hours:** 2 per week

■ **ARP672 INDUSTRIAL DESIGN 1**

This unit is linked with ARP673.

■ **ARP673 INDUSTRIAL DESIGN 2**

These units consist of studio work in which students design a range of products or systems. The emphasis is on projects generated from local industry and community. The complexity and depth of the design project increase according to the semester level.

Course: AR61 **Prerequisite:** ARP672
Credit Points: 12 **Contact Hours:** 6 per week

■ **ARP674 INDUSTRIAL DESIGN RESEARCH 1**

A topic is selected by a student and approved and supervised by industrial design staff. Examples are: micro-surgical equipment design, bushfire safety equipment, mobile dental clinic in isolated regions and interactive display in psychological testing.

Course: AR61 **Prerequisite:** ARP673
Credit Points: 18 **Contact Hours:** 8 per week

■ **ARP675 INDUSTRIAL DESIGN RESEARCH 2**

This unit depends on the topic selected by a student in the previous semester. Students are responsible for the program as a part of their project work, which are approved and supervised by industrial design staff.

Course: AR61
Prerequisites: ARP672, ARP674
Credit Points: 18 **Contact Hours:** 8 per week

■ **ARP676 ADVANCED COMPUTER-AIDED INDUSTRIAL DESIGN 1**

Advanced CAD in the design process. Introduction to the interactive use of the application of CAD/CAM and SLA in the development of finalisation of a design project.

Course: AR61
Credit Points: 6 **Contact Hours:** 2 per week

■ **ARP677 ADVANCED COMPUTER-AIDED INDUSTRIAL DESIGN 2**

Advanced CAD in design development, analysis and manufacturing (CNC) process. Employing CAD/CAM and SLA in the development, evaluation, finalisation, documentation and presentation of a design project.

Course: AR61
Credit Points: 6 **Contact Hours:** 2 per week

■ **ARP678 INDUSTRIAL DESIGN THESIS**

This is a continuation and development of the applied research project done in ARP674 /675 Industrial Design Research 2. Documentation of the research strategy, research data application, design process, methodologies, project management, final design evaluation, final design solution and business plan preparation. Students are responsible for the project management. This is approved and supervised by industrial design staff.

Course: AR61 **Prerequisite:** ARP674, ARP675
Credit Points: 24
Contact Hours: 4 per week (full-time); 2 per week (part-time)

■ **ARP679 ELECTIVE B**

Elective Unit drawn from a range available within the Faculty, elsewhere at QUT or external unit subject to approval.

Course: AR61
Credit Points: 12 **Contact Hours:** 3 per week

■ **ARP680 ELECTIVE C**

Elective Unit drawn from a range available within the Faculty, elsewhere at QUT or external unit subject to approval.

Course: AR61

Credit Points: 12

Contact Hours: 3

■ **ATN005/1 & ATN005/2 RESEARCH PROJECT FULL-TIME**

Students enrolled full-time in AT22 Master of Arts (Research) degree undertake a research project as the major component of their studies. This project may take the form of a research thesis or a creative project accompanied by a written component. The creative project could include a visual/performing arts production, or a book-length work of fiction/non-fiction, or a film/multi-media script/production.

Course: AT22

Credit Points: 48 per semester, enrolling in both Semester 1 & 2

Contact Hours: 1 per week

■ **ATN006/1 & ATN006/2 & ATN006/3 & ATN006/4 RESEARCH PROJECT PART-TIME**

Academy of the Arts, School of Humanities and School of Social Science students enrolled part-time in AT22 Master of Arts (Research) degree undertake a research project as the major component of their studies. This project may take the form of a research thesis or a creative project accompanied by a written component. The creative project could include a visual/performing arts production.

Course: AT22

Credit Points: 24 per semester, enrolling in Semesters 1, 2, 3 & 4

Contact Hours: 0.5 per week

■ **ATN007/1 & ATN007/2 & ATN007/3 & ATN007/4 & ATN007/5 RESEARCH PROJECT PART-TIME**

School of Media and Journalism students enrolled part-time in AT22 Master of Arts (Research) degree undertake a research project as the major component of their studies. This project may take the form of a research thesis or a creative project accompanied by a written component. The creative project could include a book-length work of fiction/non-fiction, or a film/multi-media script/production.

Course: AT22

Credit Points: 12 per semester enrolling in Semesters 1 & 2; 24 per semester, enrolling in Semesters 3, 4 & 5

Contact Hours: 0.5 per week

■ **AYB001 ACCOUNTING DISCLOSURE & AUDIT**

Tax effect accounting; consolidations; liquidations; acquisition of assets; company disclosure; overview of auditing and audit reports; ethics, legal liability and audit objectives; overall audit plan and audit program involving: evidence and documentation, materiality and risk, internal controls and the procedures for the audit of various applications – sales, purchases, etc.

Course: BS56, ED50

Prerequisite: AYB121

Credit Points: 12

Contact Hours: 3 per week

■ **AYB120 BUSINESS LAW**

Australian legal and constitutional system; sources of law, including doctrines and methodology of the law; statutory interpretation; a study of the law of contract; introduction to the law of torts with emphasis on the tort of negligence; aspects of consumer protection.

Courses: BS56, ED50, IF56, IT20, PU48

Prerequisites: BSB114

Credit Points: 12

Contact Hours: 3 per week

■ **AYB121 FINANCIAL ACCOUNTING**

An examination of the accounting concepts and procedures relevant to both partnership and company business structures within the context of both the accounting profession's conceptual framework and the relevant legal requirements. Topics include: the formation, accounting procedures and financial statement preparation

for both partnerships and company business structures; the role of corporate financial statement analysis; review of cash flow statements.

Courses: BS56, ED50, IF37, NS48

Prerequisite: BSB110

Credit Points: 12

Contact Hours: 4 per week

■ **AYB220 COMPANY ACCOUNTING**

Accounting for company income tax (tax effect accounting); acquisition of assets; consolidated financial statements; equity accounting and disclosure in company financial statements.

Courses: BS56, ED50, IF37

Prerequisite: AYB121

Credit Points: 12

Contact Hours: 4 per week

■ **AYB221 COMPUTERISED ACCOUNTING SYSTEMS**

Management information systems and accounting systems; database and files; systems development life cycle; design of accounting systems including sales, accounts receivable, inventory, purchases, accounts payable, non-current assets, payroll and general ledger systems; accounting software such as ACCPAC, and spreadsheet software such as LOTUS 1-2-3; internal control in computer systems.

Courses: BS56, ED50, IF37

Prerequisite: BSB110, BSB112

Credit Points: 12

Contact Hours: 4 per week

Incompatible with: AYB222

■ **AYB222 FINANCIAL MODELLING**

The development of a basic model within an organisational environment; operation of computer modelling languages; analysis and development of forecasting models; specialist financial models; model development as part of the decision support system.

Course: BS56

Prerequisites: EFB210, BSB112

Credit Points: 12

Contact Hours: 4 per week

Incompatible with: AYB221

■ **AYB223 LAW OF BUSINESS ASSOCIATIONS**

The law relating to the establishment, operation and dissolution of business associations; the forms of business associations; partnerships, trusts, companies and voluntary associations. A focus on companies: incorporation requirements, classification, share capital and management issues.

Courses: BS56, BS81

Prerequisites: AYB120 or AYN410

Credit Points: 12

Contact Hours: 3 per week

■ **AYB224 MANAGEMENT ACCOUNTING**

The nature of management accounting; cost concepts; cost profit volume analysis; relevant costs and special decisions; flexible budgets; responsibility accounting; job and process costing; introduction to finance; financing decisions: equity versus debt, leasing, investment dividends; introduction to financial maths; understanding the financial press.

Course: ED50, BS56

Prerequisite: BSB110

Credit Points: 12

Contact Hours: 4 per week

Incompatible with: AYB225

■ **AYB225 MANAGEMENT ACCOUNTING I**

Introduction to managerial accounting, the role of the management accountant, and cost concepts; costing systems including actual/normal/standard systems under job and process costing; introduction to budgeting; accounting for the factors of production: materials, labour and overheads; extension of basic costing systems for multiple products and spoilage; direct and absorption costing; cost-volume profit analysis.

Courses: BS56, IF37, IT20

Prerequisite: BSB110

Credit Points: 12

Contact Hours: 4 per week

Incompatible with: AYB224

■ AYB226 MANAGEMENT ACCOUNTING II

The application of the conceptual framework of the finance paradigm to provide a positive explanation of managerial accounting; interrelationships between managerial accounting, economics of firms, business finance, regulation, organisation behaviour and computer applications; agency theory responsibility accounting and cost allocation; decision-making and relevant costs; pricing techniques, advertising and transfer pricing; performance evaluation.

Courses: BS56, IF37, IT20 **Prerequisite:** AYB225
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: FNB115 & EFB310

■ AYB300 ACCOUNTING IN AN INTERNATIONAL ENVIRONMENT

This subject is designed to provide students with an overview of the unique problems presented by alternative corporate management control systems in a multinational environment. Overview of international accounting and cultural influences on international accounting; international patterns of accounting development; comparative international accounting systems and practices; accounting for foreign currency transactions and foreign currency derivatives; translation of foreign currency financial statements; comparative international analysis of financial statements; international financial planning and performance evaluation, international transfer pricing and taxation; external auditing of foreign operations, global accounting issues into the twenty-first century.

Course: BS56 **Prerequisites:** BSB110
Credit Points: 12 **Contact Hours:** 3 per week

■ AYB301 AUDITING

The audit environment; legal liability of auditors; professional ethics; study and evaluation of audit planning and programming, evidence, internal control theory and review techniques; audit program applications: revenue, receivables, cash, inventory; audit in EDP environments and evaluation of EDP controls; computer-assisted audit techniques; computer fraud; sampling techniques; the audit report.

Courses: BS56, ED50, IF37 **Prerequisite:** AYB220
Credit Points: 12 **Contact Hours:** 3 per week

■ AYB302 AUDITING & PROFESSIONAL PRACTICE

Audit concepts and procedures; preparing a system based audit plan; the nature and reasoning behind audit tests of balances; implementation of specified statistical sampling techniques; EDP auditing; independence; ethics; legal liability.

Course: BS56 **Prerequisite:** AYB301
Credit Points: 12 **Contact Hours:** 4 per week

■ AYB303 COMMERCIAL & SECURITIES LAW

Commercial transactions; specific types of contract: sales of goods, credit contracts, agency, bailment and insurance; aspects of the Trade Practices Act and negotiable instruments.

Course: BS56 **Prerequisites:** AYB120 or AYN410
Credit Points: 12 **Contact Hours:** 3 per week

■ AYB304 COMMERCIAL LAW

Commercial transactions: viz agency, bailment guarantees, cheques and other negotiable instruments, insurance and banking; aspects of partnerships and company law; especially for ED students.

Courses: BS56, ED50 **Prerequisite:** AYB319
Credit Points: 12 **Contact Hours:** 3 per week

■ AYB305 COMPANY LAW & PRACTICE

Advanced topics in company law including: protection of minority interests; dividend policy; insider trading, takeovers and buy-backs, law relating to financially trou-

bled companies.

Course: BS56 **Prerequisite:** AYB223
Credit Points: 12 **Contact Hours:** 3 per week

■ AYB306 COMPUTER APPLICATIONS IN FINANCE

Students learn the necessary skills to undertake analysis and applied research in business finance. Topics include: programming and data file manipulation using dBase IV; ordinary least squares regression; SPSS-PC statistical computer software.

Course: BS56 **Prerequisites:** EFB210, BSB112
Credit Points: 12 **Contact Hours:** 4 per week

■ AYB307 COMPUTER APPLICATIONS IN PUBLIC PRACTICE

Use of modern software tools and techniques as applied to finance and commerce; reinforcement of computerised share trading; hardware and software selection process; negotiating contracts involving hardware and software; using and searching on-line public access databases; the components and benefits of modern data communications business products technology in finance and commerce.

Course: BS56 **Prerequisite:** BSB112
Credit Points: 12 **Contact Hours:** 4 per week

■ AYB308 COMPUTER APPLICATIONS IN MANAGERIAL ACCOUNTING

Consideration of selected managerial accounting areas: master budgeting, cash budgeting, cost estimation, cost allocation, variance analysis, cost-volume-profit analysis; application of appropriate software tools: spreadsheet software, accounting package, graphics software, statistical analysis software.

Course: BS56 **Prerequisite:** BSB112, AYB225
Credit Points: 12 **Contact Hours:** 4 per week

■ AYB309 COMPUTER SECURITY & AUDIT

Impact of EDP on auditing, general EDP controls, EDP application controls, generalised audit software (GAS), computer-assisted audit techniques, special EDP environments, fraud and privacy.

Course: BS50, BS56 **Prerequisite:** AYB301, AYB220
Credit Points: 12 **Contact Hours:** 3 per week

■ AYB310 COMPUTERISED ACCOUNTING APPLICATIONS

This subject uses software to build various accounting applications and discusses issues related to the use of such applications. Database software will be used to build parts of an accounting information system (for example, general ledger, accounts receivable ledger or accounts payable ledger). Macros will be utilised in spreadsheets software to build automated accounting-related models. Expert systems will be examined by using commercially available software and building basic relevant applications. Issues and recent developments in accounting information systems will also be examined.

Course: BS56 **Prerequisite:** AYB221
Credit Points: 12 **Contact Hours:** 3

■ AYB311 FINANCIAL ACCOUNTING THEORY

The evaluation and development of accounting theory; regulatory framework and the theories of regulation; development of the conceptual framework; contracting cost framework; critique of historical cost and alternative theories; asset and liability definition and recognition; revenue and expense recognition and measurement.

Courses: BS56, IF37 **Prerequisite:** AYB220
Credit Points: 12 **Contact Hours:** 4 per week

■ AYB312 FINANCIAL INSTITUTIONS LAW

The legal framework of banking and other financial transactions: legal constraints upon the operations of finan-

cial institutions; bank-customer relationship; Cheque Act, Credit Act, liability for negligent advice.

Course: BS56 **Prerequisites:** AYB120 or AYN410
Credit Points: 12 **Contact Hours:** 3 per week

■ AYB313 GOVERNMENT ACCOUNTING

The structure of government economic and fiscal activities; elements of government accounting; the concept of public accountability; fiscal federalism and theory of budgeting fund accounting; public accounting of Commonwealth, state and local government levels; zero-based budgets and program budgets; budget strategies and financial decision making; project review; statutory corporations; quangos and committees; government financial reporting; external, internal and efficiency auditing; accounting for government business enterprises.

Course: BS56 **Prerequisite:** BSB110
Credit Points: 12 **Contact Hours:** 3 per week

■ AYB314 INDIRECT TAXATION

Examination of taxes relevant to the conduct of a business other than taxes directly imposed on a taxpayer's income and capital gains. Specific taxes covered include sales tax, payroll tax, land tax, stamp duty, customs and excise duties, and the superannuation guarantee charge.

Course: BS56 **Prerequisite:** AYB223
Credit Points: 12 **Contact Hours:** 3 per week

■ AYB315 INDUSTRIAL LAW

The system of law in Australia; industrial aspects of the Australian constitution; the system of industrial law in Australia; the development and role of law in industrial relations; industrial relations legislation, federal and state; common law; industrial torts; industrial actions; industrial disputes; settlement of disputes; sanctions; unions.

Course: BS56 **Prerequisite:** MGB207
Credit Points: 12 **Contact Hours:** 3 per week

■ AYB316 INSOLVENCY LAW & PRACTICE

Insolvency and liquidation; a comparison of the tests of insolvency applicable to individuals, companies, partnerships and trusts respectively; rights of secured and unsecured creditors; duties and liabilities of liquidators, receivers, etc.; company shareholders' rights; distribution of property; liabilities of bankrupts, trustees and company officers.

Course: BS56 **Prerequisite:** AYB223
Credit Points: 12 **Contact Hours:** 3 per week

■ AYB317 INTERNATIONAL BUSINESS LAW

Examination of the law governing the establishment and conduct of international business; business structures, international contracts, competing legal jurisdictions, codes of conduct; an introduction to the taxation consequences of international business.

Course: BS56 **Prerequisites:** AYB120 or AYN410
Credit Points: 12 **Contact Hours:** 3 per week

■ AYB318 INTERNATIONAL TAXATION

The subject introduces the student to the art of applying technical knowledge of taxation law to practical business problems and situations. The role of facts, commercial practice, accounting principles, and professional and ethical considerations is given due emphasis.

Course: BS56 **Prerequisites:** AYB325, AYB326
Credit Points: 12 **Contact Hours:** 3 per week

■ AYB319 LEGAL ENVIRONMENT OF BUSINESS

Consumer protection – state and Commonwealth legislation; trade regulation; restrictive trade practices; consumer credit laws; business finance options; use of a business name; choosing a business structure; establishing a business; starting, buying or franchising a business in Queensland.

Courses: ED50, BS56

Credit Points: 12

Contact Hours: 3 per week

■ AYB320 MANAGEMENT ACCOUNTING III

Application of management accounting theory and techniques to solve business problems. Examination of case studies in design of costing systems, budgeting, planning and control, decision-making, pricing and performance evaluation.

Courses: BS56, IF37

Prerequisite: AYB225

Credit Points: 12

Contact Hours: 3 per week

■ AYB321 MANAGEMENT ACCOUNTING THEORY

The development of management accounting as a discipline, development of theories – conceptual framework; theory of the firm; agency theory; contingency theory; decision theory; organisational behaviour theories; theory of constraints; application of theories within the finance/economics paradigm. The application of these theories will be considered practically within the context of issues such as transfer pricing, cost allocation and the contemporary managerial accounting techniques.

Course: BS56

Prerequisite: AYB225

Credit Points: 12

Contact Hours: 4 per week

■ AYB322 PUBLIC ADMINISTRATIVE LAW

Nature and development of law; precedent; interpretation of deeds and statutes; torts; criminal law; constitutional law; foundations of administrative law; judicial review of administrative action, natural justice, ultra vires; common law remedies; legal position of the Crown and government instrumentalities; Administrative Appeals Tribunal; the Ombudsman; the Federal Court; the Judicial Review Act; freedom of information; law and reform.

Course: BS56

Credit Points: 12

Contact Hours: 3 per week

■ AYB323 TAX PLANNING

Principles of tax practice; judicial, statutory and professional approaches to tax avoidance and evasion; structuring and restructuring business enterprises; tax planning for the employed person, current and retiring; implications of the Family Law Act.

Course: BS56 **Prerequisite:** AYB326 or as corequisite
Credit Points: 12 **Contact Hours:** 3 per week

■ AYB324 TAXATION DISPUTES

The increasing role played by administrative law and policy in taxation law and practice; accountants who engage in the provision of tax advice, lodgement of returns and tax planning need an understanding of the underlying principles; accordingly, the unit examines: the nature and effect of taxation policy statements and rulings; the self-assessment system and the administrative appeals process; the rights of practitioners and clients in relation to audits and investigations; the Australian Taxation Office.

Course: BS56

Prerequisite: AYB223

Credit Points: 12

Contact Hours: 3 per week

■ AYB325 TAXATION LAW

Statutory framework; assessable income, general and specific; capital gains; trading stock; allowable deductions, general and specific; levy of income tax; all entities; fringe benefits tax.

Courses: BS56, BS81

Prerequisites: AYB220, AYB223

Credit Points: 12

Contact Hours: 3 per week

■ AYB326 TAXATION OF BUSINESS ENTITIES

Partnerships, trusts, superannuation funds and companies; concessional treatment afforded specific classes of taxpayer; international taxation; introduction to administration and avoidance provisions; introduction to busi-

ness taxes which are not applied to income.

Course: BS56 Prerequisite: AYB325
Credit Points: 12 Contact Hours: 3 per week

■ AYN001 MANAGERIAL ACCOUNTING FOR ENGINEERS

An explanation of accounting concepts and terminology and a coverage of the accounting communication and reporting system of financial statements; using accounting information for special decision-making; financial modelling as a decision support system; how costs are accumulated for manufacturing control purposes; current issues in accounting for manufacturing including activity-based costing, costing for quality, costing for productivity.

Course: ME76
Credit Points: 12 Contact Hours: 3 per week

■ AYN400 ACCOUNTING 1 (PY)

See AYN404 Advanced Company Accounting. Please contact the School of Accountancy office regarding commencement date. This unit runs outside the normal semester timetable.

Courses: BS70, BS87, BS94
Prerequisite: AYN420 or AYN117
Credit Points: 12 Contact Hours: 3 per week
Incompatible with: AYN404 or AYN103

■ AYN401 ACCOUNTING 2 (PY)

This unit satisfies the Professional Year syllabus of the Institute of Chartered Accountants in Australia in applied areas of managerial accounting, finance and auditing. The unit builds upon the undergraduate framework in these areas. Topics are revised annually by the Institute with a focus on applied practice.

Courses: BS70, BS87, BS94
Prerequisites: AYN400 or AYN300
Credit Points: 12 Contact Hours: 3 per week

■ AYN402 ACCOUNTING INFORMATION SYSTEMS (PY)

Examination at an advanced level of accounting information systems (AIS). Topics include AIS strategic planning, feasibility analysis, systems development and implementation, networks and the electronic business.

Courses: BS70, BS87, BS89, BS94, GS70, GS81
Prerequisites: AYN416 or AYN112 or GSN202 or AYN403
Credit Points: 12 Contact Hours: 3 per week

■ AYN404 ADVANCED COMPANY ACCOUNTING

Consolidated financial statements; changes in degree of ownership; reverse subsidiaries and reciprocal shareholdings; consolidation and the existence of preference shares; translation and consolidation of foreign currency financial statements; consolidated cash flow statements; accounting for joint ventures, foreign currency transactions; segment reporting; trusts, superannuation funds and insurers. Please contact the School of Accountancy office regarding commencement date. This unit runs outside the normal semester timetable.

Courses: BS70, BS87, BS94
Prerequisite: AYN420 or AYN117
Credit Points: 12 Contact Hours: 3 per week
Incompatible with: AYN400 or AYN300

■ AYN405 ADVANCED TAX PLANNING

Application of technical expertise in income tax and other revenue laws to specific tax planning situations including employment, retirement, investment, business and professional practice; the professional responsibilities of tax advisers.

Courses: BS70, BS87, BS94
Credit Points: 12 Contact Hours: 3 per week

■ AYN406 ADVANCED TAXATION

Analysis of the capital gains tax regime, a discrete area of taxation law that is complex in nature and has far-reaching commercial ramifications. The focus is on specific issues that have significant practical relevance.

Courses: BS70, BS87, BS94
Credit Points: 12 Contact Hours: 3 per week

■ AYN407 AUDIT SAMPLING

Statistical sampling methods in the performance of audits. Discussion centres on relevant statistical concepts rather than on unique computational issues. Topics include: the audit sampling process; auditor decisions and risk; attribute, variable and probability proportional-to-size sampling.

Courses: BS70, BS87, BS94
Credit Points: 12 Contact Hours: 3 per week

■ AYN408 AUDITING (PY)

Examination at an advanced level of auditing standards and their practical application, judgmental and statistical audit sampling; EDP controls, and computer-assisted audit techniques, and audit reporting.

Courses: BS70, BS87, BS94
Prerequisite: AYN401 or FNN300
Credit Points: 12 Contact Hours: 3 per week

■ AYN409 AUDITING STANDARDS & PRACTICE

An examination of relevant auditing standards and their implications for practice. Case studies develop an analytical approach and the ability to exercise professional judgement in audit problems. Recent journal articles, legal cases and newspaper reports are used in conjunction with the cases.

Courses: BS70, BS87, BS94
Credit Points: 12 Contact Hours: 3 per week

■ AYN410 BUSINESS LAW & ETHICS

Introduction to business law and to morality in the business context. Interpretation of statutes, law of torts, contract law, consumer protection and the utility of business structures; morality and how it works as an aspect of the business community; the origins of moral belief, and the motives which lead people to abide by what they believe to be morally right and to persuade others to do likewise. The functioning morality in society drawing on psychological, sociological and philosophical perspectives with special emphasis on business aspects of morality.

Courses: BS30, BS78, BS81, BS89, GS70, GS81
Credit Points: 12 Contact Hours: 3 per week

■ AYN411 COMPANY AUDITING

The audit environment; legal liability of auditors; professional ethics; study and evaluation of audit planning and programming, evidence, internal control theory and review techniques; audit program applications; revenue, receivables, cash; inventory; audit in EDP environment and evaluation of EDP controls; computer-assisted audit techniques; computer fraud; sampling techniques; ethics; the audit report.

Courses: BS81, BS89
Prerequisite: AYN417 or AYN113
Credit Points: 12 Contact Hours: 3 per week
Incompatible with: AYN120

■ AYN412 COMPANY LAW

The law relating to the establishment, operation and dissolution of business associations, the forms of business associations; partnerships, joint ventures, trusts, companies and voluntary associations. A focus on companies: share capital prospectuses, directors' duties, incorporation and registration requirements.

Course: BS89 Prerequisites: AYN410 or ALN103
Credit Points: 12 Contact Hours: 3

■ AYN413 COMPUTER AUDITING

The impact of EDP on controls and auditing; general EDP controls; generalised audit software, static and concurrent computer-assisted audit techniques, special EDP environments and computer fraud.

Courses: BS70, BS87, BS94

Credit Points: 12 Contact Hours: 3 per week

■ AYN414 COST ACCOUNTING

Introduction to management accounting; the role of the management accountant; cost concepts; costing systems; budgeting; extension of basic costing systems for multiple products and spoilage; direct and absorption costing; cost volume profit analysis.

Courses: BS89, GS70, GS81

Prerequisites: AYN416 or AYN112 or AYN403 or AYN101 or GSN202

Credit Points: 12 Contact Hours: 3 per week

■ AYN415 EXTERNAL REPORTING ISSUES

Issues in external reporting; the extractive industries; long-term construction contracts; segments; foreign currency operations, translations and transactions; leasing; tax-effect accounting; goodwill and unidentifiable intangibles; intercorporate investments and joint ventures; liabilities and off-balance sheet financing; and funds/cash flow statements. Readings from research and professional literature to enhance students' understanding of professional problems.

Courses: BS70, BS87, BS94

Credit Points: 12 Contact Hours: 3 per week

■ AYN416 FINANCIAL ACCOUNTING I

An introduction to accounting; recording business transactions; adjusting the accounts and preparing financial statements; completion of the accounting cycle; accounting systems and specialised journals; cash and cash journals; accounting for receivables and payables; accounting for merchandising operations and inventories; non-current assets; partnerships; companies; accounting for non-current liabilities; investments; statement of cashflows; analysis and interpretation of financial statements.

Course: BS30, BS81, BS89, GS81, GS70,

Credit Points: 12 Contact Hours: 3 per week

■ AYN417 FINANCIAL ACCOUNTING II

Accounting function within a company; accounting for company income tax (tax-effect accounting); liquidation; acquisition of assets including companies; consolidated financial statements, equity accounting; disclosure in company financial statements.

Course: BS30, BS81, BS89, GS81, GS70

Prerequisite: AYN416 or AYN112

Credit Points: 12 Contact Hours: 3 per week

■ AYN418 FINANCIAL ACCOUNTING III

The evolution of accounting theory; the external financial reporting framework; theories of regulation and the conceptual framework; theory of the firm developed into the contracting cost framework; profits and application of the theory of profits – construction contracts and segment reporting; assets and the application of the theory of assets, intangible assets and the extractive industries; liabilities and the application of the theory of liabilities – debt defeasance, debt versus equity and leases; further applications of the theory of profits, assets and liabilities – intercorporate investments, joint ventures and foreign currency transactions and translation.

Courses: BS30, BS81, BS89, GS81, GS70

Prerequisite: AYN417 or AYN113

Credit Points: 12 Contact Hours: 3 per week

■ AYN419 FINANCIAL MODELLING

Modelling as an organisational planning tool; the devel-

opment and manipulation of databases in order to provide information sources for model building; the use of the modelling concept for solving investment and forecasting problems and analysing performance.

Courses: BS70, BS80, BS94

Credit Points: 12 Contact Hours: 3 per week

■ AYN420 FINANCIAL REPORTING

Conceptual framework; preparation and presentation of financial statements; accounting for income tax (tax-effect accounting), leases, construction contracts and the extractive industries; goodwill; acquisition and revaluation of assets; equity accounting. Please contact the School of Accountancy office regarding commencement date. This unit commences in early January.

Courses: BS70, BS87, BS94

Credit Points: 12 Contact Hours: 3 per week

■ AYN421 INDIRECT TAXATION

Examination of tax relevant to the conduct of a business other than taxes directly imposed on a taxpayer's income and capital gains. Specific taxes covered include sales tax, payroll tax, land tax, stamp duty, customs, excise duties and the superannuation guarantee charge.

Courses: BS70, BS87, BS94

Credit Points: 12 Contact Hours: 3 per week

■ AYN422 INSOLVENCY & RECONSTRUCTION (PY)

Examination of the law and practice of bankruptcy and corporate insolvency; comparisons between deeds of company arrangement, schemes of arrangement and reconstruction, receiverships and liquidation; the rights of secured and unsecured creditors; rights of members and employees; duties and obligations of scheme administrators, receivers and liquidators; collection and distribution of assets; public examination; actions against company officers.

Courses: BS70, BS87, BS94

Credit Points: 12 Contact Hours: 3 per week

■ AYN423 INTERNAL AUDITING

The techniques used by the internal or operational auditors; the need for efficiency or value-for-money auditing; performance auditing; the internal auditor in large organisations both public and private; ethical considerations.

Courses: BS70, BS87, BS94

Credit Points: 12 Contact Hours: 3 per week

■ AYN424 INTERNATIONAL ACCOUNTING

Issues related to international accounting and the international accounting standard setting process. Issues examined include: the harmonisation of accounting; the environmental influences on international accounting; accounting principles and procedures in selected countries; foreign currency translation and transactions; transfer pricing and management accounting issues; internal and external audits worldwide; impact of multi-national enterprises; analysis of foreign financial statements.

Courses: BS70, BS87, BS94

Credit Points: 12 Contact Hours: 3 per week

■ AYN425 INTERNATIONAL TAXATION

Application of Australian income tax law and practice to situations and transactions with an international element; root principles of jurisdiction, residence and source; substantive taxing provisions governing residents and non-residents; tax planning arrangements and applicable anti-avoidance legislation.

Courses: BS70, BS87, BS94

Credit Points: 12 Contact Hours: 3 per week

■ AYN426 LEGAL ENVIRONMENT OF BUSINESS

A study of contemporary issues in Business Law.

Courses: BS70, BS87, BS94
Credit Points: 12 **Contact Hours:** 3 per week

■ **AYN427 LIQUIDATIONS & RECEIVERSHIP**
The law and practice of bankruptcy and corporate insolvency; comparisons between deeds of company arrangement, schemes of arrangement and reconstruction, receiverships and liquidation. Topics include: the rights of secured and unsecured creditors; rights of members and employees; duties and obligations of scheme administrators, receivers and liquidators; collection and distribution of assets; public examination; actions against company officers.

Courses: BS70, BS87, BS94
Credit Points: 12 **Contact Hours:** 3 per week

■ **AYN428 MANAGEMENT ACCOUNTING (MBA)**

Management accounting and the issues confronting a management accountant. On completion of the unit, students should have an appreciation of various management accounting concepts, and be able to apply these concepts to business/accounting situations. Topics include: the nature of management accounting; cost concepts; cost profit-volume analysis; relevant costs and special decisions; flexible budgeting; responsibility accounting; costing.

Course: BS81, IF64
Prerequisites: AYN416 or AYN112
Credit Points: 12 **Contact Hours:** 3 per week

■ **AYN429 MANAGEMENT ACCOUNTING (PY)**
This unit is designed to satisfy an elective topic in the professional year program of the Institute of Chartered Accountants in Australia. The syllabus is revised annually and applied advanced managerial topics are included as the profession determines necessary for senior managerial accountants.

Courses: BS70, BS87, BS94
Credit Points: 12 **Contact Hours:** 3 per week

■ **AYN430 MANAGERIAL ACCOUNTING ISSUES A**

Issues for the management accountant in the new manufacturing environment, viewed from a finance economics perspective. Topics include performance evaluation; decision-making, cost allocation, operations research techniques.

Courses: BS70, BS87, BS94
Credit Points: 12 **Contact Hours:** 3 per week

■ **AYN431 MANAGERIAL ACCOUNTING ISSUES B**

Changing management accounting techniques to encompass the needs of service industries, not-for-profit organisations and advancement in technology; issues of cost control including costing in multi-national firms, accounting for social costs, and public relations and ethical issues.

Courses: BS70, BS87, BS94
Credit Points: 12 **Contact Hours:** 3 per week

■ **AYN432 PUBLIC SECTOR ACCOUNTING ISSUES**

The unit will introduce students to the context and operation of public sector budgeting, accounting and reporting. Specific conceptual and practical issues will be examined which distinguish public sector accounting from private sector accounting.

Courses: BS70, BS80, BS87, BS94
Credit Points: 12 **Contact Hours:** 3 per week

■ **AYN433 SPECIAL TOPIC – PUBLIC ACCOUNTING**

A study of topical areas in the public accounting area.
Courses: BS70, BS87, BS94
Credit Points: 12 **Contact Hours:** 3 per week

■ **AYN434 SPECIAL TOPIC – MANAGERIAL ACCOUNTING**

Issues of significance in managerial accounting and finance. This unit is offered when required.

Courses: BS70, BS87, BS94
Credit Points: 12 **Contact Hours:** 3 per week

■ **AYN435 TAXATION 1A (PY)**

Prepares candidates enrolled in the Institute of Chartered Accountants Professional Year for the examination and workshops in the taxation module. Topics as prescribed by the Institute are covered in cursory fashion or in depth according to the particular knowledge level requirements specified.

Courses: BS70, BS87, BS94
Credit Points: 12 **Contact Hours:** 3 per week

■ **AYN436 TAXATION 1B (PY)**

Prepares candidates enrolled in the Institute of Chartered Accountants Professional Year for the examination and workshops in the taxation module. Topics as prescribed by the Institute are covered in cursory fashion or in depth according to the particular knowledge level requirements specified.

Courses: BS70, BS87, BS94
Prerequisite: AYN435 or ALN305
Credit Points: 12 **Contact Hours:** 3 per week

■ **AYN437 TAXATION 2 (PY)**

A study program for candidates enrolled in the Advanced Taxation module of the Institute of Chartered Accountants Professional Year. Topics prescribed by the Institute are covered in sufficient depth to meet the requirements as specified in the module.

Courses: BS70, BS87, BS94
Prerequisite: AYN436 or ALN301
Credit Points: 12 **Contact Hours:** 3 per week

■ **AYN438 TAXATION LAW & PRACTICE**

Statutory framework; assessable income, general and specific; capital gains, trading stock; allowable deductions; general and specific; levy of income tax; all entities; fringe benefits tax.

Courses: BS30, BS89, GS70, GS81
Prerequisite: AYN412
Credit Points: 12 **Contact Hours:** 3 per week

■ **AYN439 MANAGEMENT ACCOUNTING**

Planning and control; decision-making and relevant costs; responsibility accounting; cost allocation; pricing techniques; transfer pricing; performance evaluation.
Courses: BS89, GS70, GS81 **Prerequisite:** AYN414
Credit Points: 12 **Contact Hours:** 3 per week

■ **AYN440 SPECIAL TOPIC- COMMERCIAL LAW**

A study of topical issues in the commercial law area.
Courses: BS70, BS87, BS94
Credit Points: 12 **Contact Hours:** 3 per week

■ **AYN500 AUDITING HONOURS**

The nature of auditing research and review of current research in such areas as: the role of auditing; independence; reporting; liability; fraud detection; audit process; risk; materiality; internal control; analytical review; ethics; computer auditing; and auditing standards.

Courses: BS60, BS63, BS70, BS87, BS94
Credit Points: 12 **Contact Hours:** 3 per week

■ **AYN501 COMMERCIAL LAW HONOURS**

The law, policy and practice of financial disclosure; detailed examination of the rules governing the preparation and audit of financial information, whether for annual accounts, experts' reports, or for use in prospectuses or takeovers. Examines the respective theories governing accountants, auditors' and directors' liabilities. Sources of law considered include the Corporations

Law, the Australian Stock Exchange listing rules, accounting standards and the common law.

Courses: BS60, BS63, BS70, BS87, BS94

Credit Points: 12 Contact Hours: 3 per week

■ AYN502 FINANCIAL ACCOUNTING HONOURS

The nature, methodology and development of accounting theory; transaction cost economics; positive accounting; accounting disclosure regulations; incentive problems and contracting explanations for external financial reporting; accounting policy choice and the value of the firm; accounting and the political process.

Courses: BS60, BS63, BS70, BS87, BS94

Credit Points: 12 Contact Hours: 3 per week

■ AYN503 MANAGERIAL ACCOUNTING HONOURS

Theoretical issues that constitute the foundations of managerial accounting theory and research; an investigation of the rationale and usefulness of managerial accounting; review of the research and literature in the areas of strategic management; management control systems; decentralisation and organisational structures; managerial performance measurement; executive performance and compensation; cost estimation and allocation.

Courses: BS60, BS63, BS70, BS87, BS94

Credit Points: 12 Contact Hours: 3 per week

■ AYN504 TAXATION POLICY HONOURS

A study of the Australian taxation system as it has evolved under the policy-making powers of the Australian government. The system is critically assessed using generally accepted criteria governing the formation of taxation policy. Detailed examination of matters on the current reform agenda.

Courses: BS60, BS70, BS87

Credit Points: 12 Contact Hours: 3 per week

■ AYP400 AUSTRALIAN INDUSTRIAL LAW

An introduction to industrial law; detailed study of law relating to trade unions and employer organisations; current developments in industrial law.

Course: BS74

Credit Points: 12 Contact Hours: 3 per week

■ AYP401 EMPLOYMENT LAW

Understanding of institutions, doctrines and methodology of general and industrial law; analysis of employment relationships; common law contract of employment; workers' compensation; legal liability for industrial action; the structure of federal and Queensland industrial relations laws.

Course: BS74

Credit Points: 12 Contact Hours: 3 per week

■ AYP402 QUALITY COST ANALYSIS

Accounting language in classification of costs, nature of fixed and variable costs for cost analysis; development of cost groupings within an organisation, use of cost allocation and cost control methods; prevention and appraisal cost data sources. Master budget, flexible budgets, derivation of standards for cost control, isolating variances, reviewing sub-standard production; burden of overhead costs, hiding the cost of poor quality production – single run case; overheads in service and non-profit organisations; identifying the cost of production in a process – continuous run, pricing of partly finished goods and at production checkpoints; activity based costing as a means to optimise quality costs.

Course: IF69

Credit Points: 6 Contact Hours: 3 per week

■ BNB001 LEARNING AT UNIVERSITY

The importance of goal setting and motivation, differ-

ences between High School and University study, the student/lecturer relationship, approach to learning questionnaire; study management, clarification of learning goals, benefits of planning to the control of learning; using lectures and pracs to your advantage, networking, concept mapping and flow charts; using textbooks and set notes to boost understanding; active versus passive learning skills and the implications of both; professional writing – pracs, reports, assignments; critical thinking, problem-solving; concentration and memory; learning and stress management; exam preparation, strategies and techniques.

Courses: BN30, IF54

Credit Points: 2 Contact Hours: 1.5 per week

■ BNB003 PROFESSIONAL PRACTICE IN ASIA/PACIFIC

Overview of the region; institutional and business environments; guidelines for professional practice overseas; sourcing opportunities; selected case studies.

Courses: CE42, EE44, ME45, IF44

Credit Points: 8 Contact Hours: 3 per week

■ BNB004 TECHNOLOGY & SOCIETY

Introduction of the technologies and philosophies employed by the professions in the faculty; social and ethical aspects of professional practice; introduction of study skills required at university; introduction of the three major engineering disciplines – explanation of their similarities and differences; introduction of the other professional groups represented in the Faculty of Built Environment and Engineering; explanation of how these groups interact with engineers and society; develop information retrieval skills; codes of ethics relevant to professional practice.

Courses: CE31, CE42, CE43, EE43, EE44, EE45, ME35, NE45, ME47

Credit Points: 8 Contact Hours: 3 per week

■ BNB103 GENERAL ELECTIVE UNIT

Studies previously completed by students in areas of business or humanities may be acceptable as a Group A elective; applications to have such studies accepted as meeting the Group A elective requirements are considered on an individual basis.

Courses: EE44, ME45

Credit Points: 4 Contact Hours: 2

■ BNT100 INDUSTRIAL EMPLOYMENT 1

Students should engage in at least 15 weeks' employment, approved by the Head of School. For the employment to be recognised, students must submit an industrial experience record form which has been completed by both the student and the employer.

Courses: CE21

Credit Points: 3 each Contact Hours: 15 weeks each

■ BNT200 INDUSTRIAL EMPLOYMENT 2

Students should engage in at least 15 weeks' employment, approved by the Head of School. For the employment to be recognised, students must submit an industrial experience record form which has been completed by both the student and the employer.

Courses: CE21

Credit Points: 3 each Contact Hours: 15 weeks each

■ BNT300 INDUSTRIAL EMPLOYMENT 3

Students should engage in at least 15 weeks' employment, approved by the Head of School. For the employment to be recognised, students must submit an industrial experience record form which has been completed by both the student and the employer.

Courses: CE21

Credit Points: 3 each Contact Hours: 15 weeks each

■ BNT400 INDUSTRIAL EMPLOYMENT 4

Students should engage in at least 15 weeks' employment, approved by the Head of School. For the employment to be recognised, students must submit an industrial experience record form which has been completed by both the student and the employer.

Courses: CE21

Credit Points: 3 each Contact Hours: 15 weeks each

■ BNT500 INDUSTRIAL EMPLOYMENT 5

Students should engage in at least 15 weeks' employment, approved by the Head of School. For the employment to be recognised, students must submit an industrial experience record form which has been completed by both the student and the employer.

Courses: CE21

Credit Points: 3 each Contact Hours: 15 weeks each

■ BNT600 INDUSTRIAL EMPLOYMENT 6

Students should engage in at least 15 weeks' employment, approved by the Head of School. For the employment to be recognised, students must submit an industrial experience record form which has been completed by both the student and the employer.

Courses: CE21

Credit Points: 3 each Contact Hours: 15 weeks each

■ BNT700 INDUSTRIAL EMPLOYMENT 7

Students should engage in at least 15 weeks' employment, approved by the Head of School. For the employment to be recognised, students must submit an industrial experience record form which has been completed by both the student and the employer.

Courses: CE21

Credit Points: 3 each Contact Hours: 15 weeks each

■ BNT800 INDUSTRIAL EMPLOYMENT 8

Students should engage in at least 15 weeks' employment, approved by the Head of School. For the employment to be recognised, students must submit an industrial experience record form which has been completed by both the student and the employer.

Courses: CE21

Credit Points: 3 each Contact Hours: 15 weeks each

■ BSB110 ACCOUNTING

A study of the basic accounting process, both financial and managerial, and an introduction to the interpretation of accounting information. This unit covers financial procedures and reporting for sole traders, partnerships; analysis and interpretation of financial statements; planning, control and business decision making.

Courses: AA21, BS50, BS56, ED23, ED50, IF37, IF52, IF54, IS43 IT20, PU48

Credit Points: 12 Contact Hours: 4 per week

■ BSB111 BUSINESS ETHICS

This unit introduces students to a framework of ethical decision making which draws on a variety of ethical theories. The first part of the unit develops the theoretical underpinning of ethics. The second part applies the theoretical concepts to actual business decisions. The third part analyses aspects of the legal environment in the light of ethical reasoning.

Course: BS56

Credit Points: 12 Contact Hours: 3 per week

■ BSB112 BUSINESS TECHNOLOGY AND INFORMATION

Provides students with an introduction to electronic commerce and business systems and with a practical understanding of the computing, communications and information systems technologies underlying electronic business systems used both nationally and internationally. Overview of how to find and retrieve information provided in electronic business. The impact of electronic

business in terms of security, privacy, legal issues. Practical experience in using and applying common business software functions such as wordprocessing, graphics, spreadsheet and database to business information problems.

Courses: BS56

Credit Points: 12 Contact Hours: 3 per week

■ BSB113 ECONOMICS

In this unit students will be introduced to the key concepts of economics, both macro and microeconomics, presented in an intuitive and applied fashion. The role of the market and prices in achieving an economically efficient allocation of resources is described. In particular, the markets for products, labour and capital in Australia and its competitors are examined. Current important economic issues, such as the importance of savings for economic growth and the 'problem' of the balance of payments and foreign debt are discussed. The use of real Australian data and examples will illustrate the relevance of the topics to Australian business and government and show how these relate to the international economy.

Courses: BS50, BS56

Credit Points: 12 Contact Hours: 3 per week

Incompatible with: EPB116, EPB140, EPB150, EPB172

■ BSB114 GOVERNMENT, BUSINESS AND SOCIETY

This unit will provide a basic grounding in the principles, institutions and functions of government, and their interactions with business and society. Its principal focus is the structure and key features of Australia's constitutional and government framework including the judicial and administrative processes, especially as they affect business. Students also will develop a comparative appreciation of the principles, institutional arrangements and practices of contemporary government in a global context. This will include consideration of law-making and policy processes and the impact of the changing national and international environment.

Course: BS56

Credit Points: 12 Contact Hours: 3 per week

■ BSB115 MANAGEMENT, PEOPLE AND ORGANISATIONS

The unit provides an introduction to the theories and practice of management and organisations. Emphasis is on the conceptual and people skills that will be needed at all levels of management and in all areas of organisational life. The unit acknowledges that organisations exist in an increasingly international environment where the emphasis will be on knowledge, the ability to learn, to change and to innovate. Organisations are viewed from individual, group, corporate and external environmental perspectives.

Course: BS56

Credit Points: 12 Contact Hours: 3 per week

■ BSB116 MARKETING AND INTERNATIONAL BUSINESS

This introductory subject focuses on the role and importance of international business and marketing to the contemporary organisation. The subject matter will concentrate on the major decision-making areas of international business and marketing. Emphasis will be given to topics such as international trade, world financial legal systems, globalisation processes, technological change and the opportunities, constraints and problems which challenge the design of marketing strategies in the international business environment. The unit is divided into five sections dealing with: the world financial environment; the legal environment; the physical

environment and the role of technology; the socio-cultural context of international business and marketing, transactional relations. Each section will have a theoretical component and students will be introduced to the relevant international and regional institutions, the major problems confronting international business and marketing and the analytical approaches which may be used in their study.

Courses: BS50, BS56

Credit Points: 12 **Contact Hours:** 3 per week

■ **BSB117 PROFESSIONAL COMMUNICATION AND NEGOTIATION**

Introduces students to the principles and applications of communication within the professional context. This unit covers academic and workplace writing, oral presentations, negotiation, and current technology for writing and presentations.

Courses: BS50, BS56

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: COB160, COB106, COB205

■ **BSB118 BUSINESS COMMUNICATION & APPLICATION SYSTEMS**

Nature and development of information systems; transaction processing and computer applications in business; management information systems, decision support systems, executive information systems and expert systems; security issues; theory and practice of written communication in a professional context.

Courses: IF33, IF38, IF53, IF54, IS28, IS43, IT20, IT32, BS56

Credit Points: 12 **Contact Hours:** 3 per week

■ **BSB300 MANAGEMENT, THE FIRM AND INTERNATIONAL BUSINESS**

Provides a detailed examination of the impact of the international environment upon management and the firm. Examines how management and the firm responds to change if success is to be achieved in a competitive international market. Focuses upon the concepts of change and efficiency in examining dimensions of management practices in order to assess the capacity of a firm to respond proactively; as well as organisational form, major functional processes, networks and strategic responses.

Courses: BS50, BS56

Prerequisites: BSB102 or HRN104 or BSB115 and MIB202 or BSB116 and MGB206

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRB118

■ **BSN400 INDUSTRY ANALYSIS**

This unit aims to provide students with a detailed understanding of the particular industry or industries within which their organisation operates. A sound understanding of the nature of an industry requires the development of appropriate conceptual, analytical and operational skills. This unit provides the framework within which these dimensions are developed and applied to industries selected by the student for their major assignment.

Credit Points: 12 **Contact Hours:** 3 per week

■ **BSN401 MANAGEMENT, THE ORGANISATION AND INTERNATIONAL BUSINESS**

Whereas BSN408 is concerned with broad, international trends, this unit aims to provide a detailed examination of the typical impacts of the international environment upon the organisation, its management, structure, operations and human resource capacities. In addition, the unit will provide an introduction to the management issues to be faced by organisations entering into export markets.

Credit Points: 12 **Contact Hours:** 3 per week

■ **BSN402 PRODUCT AND SERVICE EVALUATION**

A major first step in addressing an organisation's capacity to compete in the global environment is the evaluation of the adequacy of the goods and services it provides. The aim of this unit is to provide students with the ability to select from and apply a range of evaluative frameworks and related techniques suitable in a variety of settings, to a range of products and services.

Prerequisites: BSN408 or EPN108 or GSN101 or 48 credit points in the MBA (Prof)

Credit Points: 12 **Contact Hours:** 3 per week

■ **BSN403 PRODUCT AND SERVICE INNOVATION AND DEVELOPMENT**

Once the strengths and weaknesses of an organisation's products and services have been identified and evaluated, the task is to determine the appropriate, innovative products and services that will enhance its market position. Models of product innovation and development will be examined, followed by an application of the models in an applied fashion, focusing upon: idea generation and screening; evaluating product and service ideas; financial evaluation; design for new and existing markets; human resource needs and capacities for innovation and development.

Prerequisites: BSB408 or EPN108 or GSN101 or 48 credit points in the MBA (Prof)

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: Seminars in Product Innovation and Development or MKN109

■ **BSN404 PROJECT 1**

This unit is designed to permit the student to undertake a research project, subject to the approval of the Course Coordinator.

Course: BS94

Credit Points: 12

■ **BSN405 PROJECT II**

This unit is designed to permit the student to undertake a research project, subject to the approval of the Course Coordinator.

Course: BS94

Credit Points: 12

■ **BSN406 PROJECT III**

This unit is designed to permit the student to undertake a research project, subject to the approval of the Course Coordinator.

Courses: BS93, BS94

Credit Points: 24

■ **BSN407 STRATEGIC BUSINESS ANALYSIS**

A knowledge of international and domestic industry market trends and their specific impacts upon the organisation provides the basic data for the development of flexible strategic visions and plans. The aim of this unit is to provide an examination of major paradigms in strategic formulation and implementation, developing a synthesis of competing prescriptive and descriptive approaches. It will enable the development of an integrating framework to explore why organisations differ and how these differences, in terms of individual competencies and organisational capacities, provide for sustainable competitive advantage in domestic and international markets.

Prerequisites: BSB408 or EPN108

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: MBA Strategic Management or Business Policy units.

■ **BSN408 BUSINESS AND THE INTERNATIONAL ENVIRONMENT**

Business operates in an increasingly international environment which has direct and rapid impacts upon domestic and other markets for products and services. The aim of this unit is to provide a detailed understanding of

the structure of that environment, its current and important trends. The focus will be on the economic, social and political factors determining the contemporary international business structure and its likely future development.

Course: GS80

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: GSN101

■ BSN409 RESEARCH PROJECT

A major piece of applied research. The research project provides the opportunity to apply and reinforce the education and knowledge gained from the course to resolve a complex business problem in accounting, banking and finance, and accounting legal studies or related discipline by research report, case study or application of technology. The final project must demonstrate an ability to identify and research a complex business problem in accounting, banking and finance and accounting legal studies or related discipline.

Course: BS94

Credit Points: 24 **Prerequisite:** BSN500
Contact Hours: 3 per week

■ BSN500 RESEARCH METHODS

The research methodology used in accounting and economics disciplines; the use of certain research techniques to assist students in their research dissertation and preparation of research papers; aims to develop a capacity to build a theoretical model, to design an appropriate research methodology and to understand and utilise statistical analysis for research purposes. This unit is a prerequisite for BSN501 Dissertation and should be attempted immediately prior to enrolment in BSN501 Dissertation.

Courses: BS60, BS70, BS87

Credit Points: 12 **Contact Hours:** 3 per week

■ BSN501 DISSERTATION

Students undertake a study of an issue as the culmination of their Honours program. The dissertation must have a well-developed conceptual foundation and include a primary research component.

Course: BS63

Credit Points: 48

■ BSN502 RESEARCH METHODOLOGY

The purpose of this study is to provide students with a range of ideas and methods that will enable them to analyse, evaluate and conduct research in discipline areas related to Business. It provides an essential and basic preparation for the development of a thesis or dissertation proposal. Areas of study include: research paradigms; analysis and criticism; research design; data collection; data manipulation and interpretation; presentation.

Courses: BS63, BS85, BS61, BS92

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: BSB400

■ BSN503 RESEARCH SEMINAR

The aim of this unit is for the student to prepare a detailed review of the literature relevant to the thesis or dissertation proposal. Students will be required to prepare and present a detailed seminar paper describing and explaining the results of their review, and its relevance to the thesis or dissertation proposal. The unit is structured into two parts: the first provides a series of lectures from staff advising as to the requirements of a thorough, well-directed literature search and review; the second consists of a series of seminars from students presenting their findings.

Courses: BS63, BS85, BS61, BS92

Credit Points: 12 **Contact Hours:** 3 per week

■ BSN600 THESIS

This is the major component of a research Masters and consists of a substantial study of an applied or theoretical issue. Students are expected to present a seminar each

semester on their progress to date and, in the final semester, on the outcomes of their study. The thesis is expected to have a sound conceptual and theoretical foundation for the exploration of a significant communication topic using primary research data. The thesis report should be of approximately 50 000 words.

Course: BS80

Credit Points: 96

■ CEB106 EXPERIMENTAL DESIGN AND ANALYSIS

Introduction to designing simple laboratory experimental investigations. Production of working drawings for manufacture of testing apparatus. Use of data acquisition software and hardware, including strain gauges, LVDT's and load cells. The role of safety and quality audits in the laboratory.

Course: CE31

Credit Points: 8

Contact Hours: 3

■ CEB108 APPLIED PHYSICS

Allows students without senior high school physics to obtain a basic grounding in areas such as electricity, magnetism, kinematics and mechanics and their practical applications in civil engineering.

Course: CE31

Credit Points: 8

Contact Hours: 4

■ CEB170 ENGINEERING SCIENCE

Introduction to material science including bonding, crystal structure, lattice defects and mechanical properties of solids. Investigating the macro behaviour of engineering materials applied to loads. The principles of heating and insulation in civil works. Measurement and evaluation of noise. Physical optics. Environmental degradation of civil engineering materials. Chemical reactions in corrosion processes. Impact of chemical processes on the natural environment.

Course: CE31

Credit Points: 8

Contact Hours: 3

■ CEB184 ENGINEERING MECHANICS 1

Introduction to statics, forces, moments and couples; resolution and resultant of forces acting on a particle or rigid body; equilibrium of particle or rigid body under forces and/or moments; analytical and graphical methods for plane truss analysis; shear force and bending moment in beams; the properties of sections.

Course: CE42

Credit Points: 8

Contact Hours: 21 per week over 4 weeks

■ CEB185 ENGINEERING MECHANICS 2

Principles of structural mechanics, stress, strain and elasticity; indeterminate structures and compatibility; simple beam theory including the flexure formula and the shear stress formula; torsion of circular sections; stresses in thin-walled pressure vessels; shear force and bending moment diagrams; hydrostatics.

Course: CE42

Corequisite: CEB184

Credit Points: 8

Contact Hours: 21 per week over 4 weeks

■ CEB192 INDUSTRIAL EXPERIENCE 1

Students should engage in at least five weeks' employment, approved by the Head of School. For details see the School's Industrial Experience Handbook.

Course: CE42, CE43, IF42 **Contact Hours:** 5 weeks

■ CEB201 STEEL STRUCTURES

Structural behaviour and limit state design of steel structures, first as structural elements such as beams, columns, beam-columns and ties, then their connections (bolted and welded) and simple assemblies. Practical details and economy are discussed. Site visit and laboratory testing may be included.

Course: CE42, CE43, IF42

Credit Points: 8

Prerequisite: CEB185
Contact Hours: 3.5 per week

■ CEB202 CONCRETE STRUCTURES 1

Basic principles involved in the limit state design of reinforced concrete structures. The determination of size and reinforcement to resist shear and bending in beams. Anchorage and detailing of reinforcement. Deflections in concrete structures and the analysis of long and short columns in uniaxial bending.

Courses: CE31, CE42, CE43, IF42

Prerequisite: CEB185

Credit Points: 8 **Contact Hours:** 3.5 per week

■ CEB203 CAD FOR CIVIL ENGINEERS

Using personal computers and networks for civil engineering drafting and design. Software packages such as Autocad, Civil Cad, Micro-station or their equivalents will be used to prepare plans and designs for engineering projects.

Course: CE31

Credit Points: 8 **Contact Hours:** 3

■ CEB204 COMPUTER APPLICATIONS

The use and management of information technology related to civil engineering. Information system design and delivery mechanisms for the systems. The use of computing systems for the acquisition, analysis and presentation of data.

Course: CE31

Credit Points: 8 **Contact Hours:** 3

■ CEB211 HIGHWAY ENGINEERING

Highway geometry including vehicle performance and human factors as they relate to road geometry, geometric design, geometric coordination and use of computer-aided design. Highway pavements including pavement materials and construction processes, pavement cross-sections and drainage, pavement theory and pavement analysis methods. Construction sites will also be visited.

Course: CE42, CE43, IF42, CE31

Prerequisites: CEB293, PSB907

Credit Points: 8 **Contact Hours:** 4 per week

■ CEB221 ENGINEERING INVESTIGATION ANALYSIS AND REPORTING

Recording, analysing and presenting data are important facets of modern civil engineering practice. Not only do engineers use rapidly changing, microcomputer-based technology to access and analyse data, but they must be able to explain the results of their work in clear reports to their peers and to the public. Skills are developed in these aspects of engineering practice, emphasising the use of microcomputers. Microcomputers and their application in civil engineering; investigation and reporting, and the use of wordprocessors, spreadsheets, databases and computer graphics; development of student confidence and ability in keeping up with this changing technology. Verbal and written presentation techniques of civil engineering investigation topics. Skills taught in this unit will also aid students in most units taught in the curriculum.

Courses: CE42, CE31, CE43, IF42

Prerequisite: MEB181

Credit Points: 8 **Contact Hours:** 4 per week

■ CEB224 COMPUTER APPLICATIONS

The applications of computers in civil engineering will be studied with emphasis on software packages. This unit will establish the tools essential for CEB225 and CEB226 Civil Projects A & B.

Course: CE31

Credit Points: 8 **Contact Hours:** 3 per week

■ CEB225 CIVIL PROJECTS A

These units will integrate the skills and knowledge developed in earlier units by applying the basic engineering science and technology to complete specific engineering design projects. The objectives of this problem-based learning include both the development of specific design skills and the development of generic skills such as professional problem solving, group management, presentation and communication and professional practice issues such as ethics and social effects.

Course: CE31

Credit Points: 8

Contact Hours: 4 per week

■ CEB226 CIVIL PROJECTS B

These units will integrate the skills and knowledge developed in earlier units by applying the basic engineering science and technology to complete specific engineering design projects. The objectives of this problem-based learning include both the development of specific design skills and the development of generic skills such as professional problem solving, group management, presentation and communication and professional practice issues such as ethics and social effects.

Course: CE31

Credit Points: 8

Contact Hours: 4 per week

■ CEB227 CIVIL INVESTIGATION PROJECT

This will involve a small investigation of an area of civil engineering technology. The unit is designed to develop a student's ability to learn independently and to compile and present verbal and written reports on the results of their investigation.

Course: CE31

Credit Points: 8

Contact Hours: 4 per week

■ CEB240 SOIL MECHANICS 1

Description and classification of soil for engineering purposes; moisture/density relationships; compaction; pore pressure, effective stress and suction; shear strength of cohesionless and cohesive soils; lateral earth pressure; earth retaining structures design.

Course: CE42, CE43, IF42, CE31

Prerequisite: CEB185

Credit Points: 8

Contact Hours: 3.5 per week

■ CEB241 SOIL MECHANICS 2

Bearing capacity of shallow foundations; permeability and seepage; surface loading on an elastic medium; pore pressure parameters; consolidation; settlement and design of shallow foundations; computer applications in seepage and consolidation.

Course: CE31, CE42, CE43, IF42

Prerequisite: CEB240

Credit Points: 8

Contact Hours: 3 per week

■ CEB254 STRUCTURAL ENGINEERING 1

Determination of forces and/or bending moment distribution in simple determinate structures, stress distributions and transformation of stresses, strain and second moments of area, deflections of beams by the virtual work method and unsymmetrical bending.

Course: CE42, CE43, IF42, CE31

Prerequisite: CEB185

Corequisite: MAB487

Credit Points: 8

Contact Hours: 3.5 per week

■ CEB255 STRUCTURAL ENGINEERING 2

Analysis of simple determinate structures by moment distribution and sway settlement and temporary affect, plastic analysis of beams, influence line diagram for beam frames and trusses, tension on members and deflections of frames and trusses by virtual work method.

Course: CE42, CE43, IF42

Prerequisites: CEB254, MAB487

Credit Points: 8

Contact Hours: 3.5 per week

■ CEB260 FLUID MECHANICS

Fluid mechanics; its relationship to civil engineering practice; fluid properties; fluid statics, pressure, forces, buoyancy and stability; continuity, energy and momentum applied to steady one-dimensional flows; viscosity,

turbulence, boundary layers and fluid dynamics forces; dimensional analysis.

Course: CE42, CE43, IF42, CE31

Prerequisites: CEB185, MAB187, MAB188

Credit Points: 8 **Contact Hours:** 3.5 per week

■ **CEB261 HYDRAULIC ENGINEERING 1**

The applications of fluid mechanics to pipe and open channel flow, flow measurement and hydraulic machinery. Topics include: steady flow in pipes, networks, flow measurement, uniform flow in open channels, pump and turbines.

Courses: CE42, CE31, CE43, IF42

Prerequisite: CEB260 **Corequisite:** MAB487

Credit Points: 8 **Contact Hours:** 3.5 per week

■ **CEB270 ENVIRONMENTAL SCIENCE**

An introduction to the basic principles of ecology and natural systems. To give an appreciation of the adverse consequences of various types of pollution.

Courses: CE42, CE31, CE43 **Prerequisite:** SCB246

Credit Points: 8 **Contact Hours:** 3 per week

■ **CEB292 INDUSTRIAL EXPERIENCE 2**

Students should engage in at least five weeks' employment, approved by the Head of School. For details see the School's Industrial Experience Handbook.

Course: CE42, CE43, IF42 **Contact Hours:** 5 weeks

■ **CEB293 CIVIL ENGINEERING MATERIALS**

Physical, chemical and engineering properties of common civil engineering materials. Ferrous and nonferrous metals and alloys, timber, bitumen, cladding materials, polymers, corrosion of materials and protective measures. Selection of materials. Role of quality control in engineering units.

Course: CE42, CE43, IF42 **Prerequisites:** MEB134

Credit Points: 8 **Contact Hours:** 3 per week

■ **CEB294 ENGINEERING SCIENCE**

This will be designed to strengthen the engineering science background of associates. It will allow for some students to be exempt from parts of the subject in which they have a strong background.

Courses: CE31 **Prerequisite:** MEB134

Credit Points: 8 **Contact Hours:** 4 per week

■ **CEB304 CIVIL ENGINEERING DESIGN 1**

Design project work involving the use of steel and reinforced concrete, geotechnical and highway designs; the influence of construction method to design; students prepare design calculations and sketches with the help of design aids and computer software; problem solving skills using projects.

Course: CE42, CE43, IF42

Prerequisites: CEB201, CEB202, CEB211, CEB240,

CEB255, CEB241

Credit Points: 16 **Contact Hours:** 3.5 per week

■ **CEB306 CONCRETE STRUCTURES 2**

Principles involved in the serviceability limit state and ultimate limit state design of prestressed concrete structures. Stress blocks and equivalent loads due to prestress, losses, serviceability limit states of cracking and deflection, ultimate limit states of bending and shear, evaluation of deflections and design.

Course: CE42, CE43, IF42 **Prerequisite:** CEB202

Credit Points: 8 **Contact Hours:** 3 per week

■ **CEB309 CONSTRUCTION PRACTICE**

Basic procedures of civil engineering construction; provides a foundation for further construction studies; gives a practical perspective to later theoretical units.

Courses: CE31, CE42, CE43, IF42

Prerequisites: CEB202, CEB293

Credit Points: 8 **Contact Hours:** 3.5 per week

■ **CEB315 TRAFFIC ENGINEERING**

Traffic theory: traffic behaviour, models; traffic management analysis: unsignalised and signalised intersections, street lighting, signs, markings, barriers, parking. Traffic studies and transport planning.

Course: CE31, CE42, CE43, IF42

Prerequisite: CEB211

Credit Points: 8 **Contact Hours:** 3 per week

■ **CEB316 CONSTRUCTION PLANNING & ECONOMICS**

Manual and computer based methods for the planning and programming of projects. The principles of economic and financial analysis pertaining to the planning and execution of engineering projects.

Courses: CE31, CE42, CE43, IF42

Credit Points: 8 **Contact Hours:** 3 per week

■ **CEB342 GEOTECHNICAL ENGINEERING 1**

Soil slope stability analysis by limit equilibrium, drained and undrained conditions. Tock mechanics; rock properties and shear strength. Application to simple slope stability models. Pile foundations: vertical load soil capacity and settlement. Site investigation and in situ determination of soil properties.

Course: CE42, CE43, IF42 **Prerequisite:** CEB241

Credit Points: 8 **Contact Hours:** 3 per week

■ **CEB356 STRUCTURAL ENGINEERING 3**

Structural analysis of determinate structures under moving loads using influence lines for beams and trusses. The application of plastic analysis techniques to the analysis of beam, frame and slab structures.

Course: CE42, CE43, IF42 **Prerequisite:** CEB255

Credit Points: 8 **Contact Hours:** 3 per week

■ **CEB362 HYDRAULIC ENGINEERING 2**

Hydraulics: unsteady flow, movable boundary hydraulics, hydraulic models and hydraulic design of structures. Topics include: steady flow compound open channels with variable roughness; unsteady flow in pipes; unsteady flow in open channel flow; design of hydraulic structures such as transitions, culverts, crests, chutes, etc.; mobile boundary hydraulics; the theory and practice relating to fixed and mobile boundary, natural scale and distorted models.

Course: CE42, CE43, IF42 **Prerequisite:** CEB261

Corequisite: MAB893

Credit Points: 8 **Contact Hours:** 3 per week

■ **CEB364 ENGINEERING SCIENCE 2**

Hydraulic engineering for surveyors. Fluids and fluid flow in pipes and channels. Flow measurement. Hydraulic models. Pumps and pump characteristics.

Courses: PS47, PS48 SV34

Prerequisites: MAB199, MEB221

Credit Points: 6 **Contact Hours:** 3 per week

■ **CEB371 WATER AND WASTEWATER SYSTEMS**

With CEB370, this unit provides a basic understanding of public health engineering practice and an introduction to design in the area of water and wastewater systems. This is a major application area for both generalist civil engineers and environmental engineers.

Courses: CE31, CE42, CE43, IF42

Prerequisite: CEB373

Credit Points: 8 **Contact Hours:** 3 per week

■ **CEB372 ENVIRONMENTAL TECHNOLOGY**

An introduction to resource management and pollution control. The effects of technological processes on the environment. Concept of sustainable development.

Courses: CE31, CE42, CE43

Prerequisites: CEB270, SCB246 **Corequisite:** CEB370

Credit Points: 8 **Contact Hours:** 3 per week

■ **CEB373 PUBLIC HEALTH ENGINEERING 1**
The principles of public health engineering. Causes and effects of water pollution, principles of unit processes and operations of water quality control. An introduction to air pollution, its causes and control.
Courses: CE31, CE42, CE43, IF42
Prerequisite: SCB246
Credit Points: 8 Contact Hours: 3.5 per week

■ **CEB375 ENVIRONMENTAL SCIENCE & TECHNOLOGY**
An introduction to the basic principles of ecology and natural systems. To give an appreciation of the adverse consequences of various types of pollution.
Course: CE42, CE43 Prerequisite: SCB246
Credit Points: 7 Contact Hours: 3 per week

■ **CEB392 INDUSTRIAL EXPERIENCE 3**
Students should engage in at least five weeks' employment, approved by the Head of School. For details see the School's Industrial Experience Handbook.
Course: CE42, CE43 Contact Hours: 5 weeks

■ **CEB401 DESIGN PROJECT**
Students will work in groups to produce initial studies and outline designs of typical civil engineering projects. Students are required to define problems, establish goals for the project, identify and collect necessary information, generate alternative solutions and optimise some of these solutions. Students are to develop an awareness of the possible impact of civil engineering projects on ecosystems. Students will prepare and present reports on aspects of selected projects, including feasibility studies, environmental and economic assessment. Compulsory site visits.
Course: CE42, CE43
Prerequisites: CEB316, CEB315, CEB362, CEB341
Credit Points: 8 Contact Hours: 3 per week

■ **CEB402 PROFESSIONAL PRACTICE**
Engineering organisations, project initiation, documentation, form of contract, contract administration, arbitration, safety and insurances, legal responsibilities, ethics. Preparation in job applications and interview techniques.
Course: CE42, CE43, IF42 Prerequisite: CEB316
Credit Points: 8 Contact Hours: 3 per week

■ **CEB407 STRUCTURAL APPLICATIONS**
Analysis, design, supervision of construction and performance of structures. Topics include: structural systems, modelling, sketching, civil engineering structures, designing for construction, detailing and lessons from structural failures, timber structures and the role of testing, controlling vibrations in structures.
Course: CE42, CE43, IF42
Prerequisites: CEB255, CEB355
Credit Points: 8 Contact Hours: 3 per week

■ **CEB408 CIVIL ENGINEERING DESIGN 2**
Continuation of CEB304, with topics covering structural and civil engineering design, i.e. municipal civil/structural projects. Field visits are required. More general problem-solving skills are developed so graduates can successfully complete projects other than those covered in the course.
Course: CE42, CE43, IF42
Prerequisites: CEB293, CEB304, CEB342, CEB371
Credit Points: 16 (8 per semester)
Contact Hours: 3 per week

■ **CEB464 ENGINEERING SCIENCE 3**
Rainfall intensity duration frequency relating in Australia; hydrographs, annual rainfall; stream flow hydrographs, rainfall-runoff relations, including the rational formula; frequency analysis; open channel flow,

pipelines and culverts; design of stormwater drainage systems, including major and minor systems; water supply and sewerage descriptive treatment of sources and treatment processes.
Course: PS47, PS48 Prerequisite: CEB364
Credit Points: 6 Contact Hours: 3 per week

■ **CEB471 ENVIRONMENTAL DESIGN PROJECT**
Intended to combine material covered in a number of disciplinary areas into a realistic environmental engineering project where the overall scope of a 'real world' environmental engineering problem is investigated. A general approach to problem definition and solution is to be emphasised and the identification and study of environmental impacts is illustrated by application to a specific project.
Course: CE42, CE43
Prerequisites: CEB362, CEB316, CEB315, CEB342
Credit Points: 8 Contact Hours: 3 per week

■ **CEB475 ENVIRONMENTAL ENGINEERING DESIGN**
Continues on from Civil Engineering Design 1 with the emphasis shifting to design of projects involving water quality management, waste management, land management and other environmental engineering applications. More general problem-solving skills are to be developed so that graduates can successfully complete projects other than those covered in the course. There is special emphasis on the appropriate use of computers for engineering analysis and design and on the potential use of computers for monitoring and control of engineering processes.
Course: CE42, CE43
Prerequisites: CEB304, CEB270, CEB372
Credit Points: 16 (8 per semester)
Contact Hours: 4 per week in Semester 1; 3 per week in Semester 2

■ **CEB493 PROJECT (CIVIL)**
Students undertake a relatively difficult task in an area of civil engineering practice requiring research and development. Each project will include: a literature review; problem definition; organisation and execution of a program of investigation; critical analysis of investigation; presentation of a seminar on the work and presentation of a written report.
Course: CE42, CE43, IF42
Prerequisites: CEB221, CEB304. Completion of at least 250 credit points of the course including an appropriate combination of units.
Credit Points: 16 (8 per semester)
Contact Hours: 3 per week

■ **CEB501 CIVIL ENGINEERING PRACTICE 1**
Lectures, tutorials, practical work and field trips covering current topics in a specified area of civil engineering at an advanced undergraduate level. Unit is offered irregularly. When offered, the unit material will be advertised by the Head of School.
Course: CE42, CE43, IF42
Prerequisites: Students must be in the final year of their course.
Credit Points: 8 Contact Hours: 3 per week

■ **CEB502 PROJECT CONTROL**
The planning and management of engineering developments of significance requires a range of project management skills relating to the interactions required with other professional disciplines, clients, government and the community. This subject provides training and experience in the application of these inter-disciplinary skills.

Course: CE42, CE43, IF42 Prerequisite: CEB316
Credit Points: 8 Contact Hours: 3 per week

■ CEB503 ADVANCED CONSTRUCTION METHODS

Examination of existing practice and technology in the construction industry and insights into current and future developments in construction techniques and plant. Site visits are included.

Course: CE42 Prerequisites: CEB305, CEB309
Credit Points: 8 Contact Hours: 3 per week

■ CEB505 PROJECT MANAGEMENT & ADMINISTRATION

Using case studies and 'role playing' techniques, students are required to develop solutions to a variety of project management problems, submit reports and make presentations regarding these exercises.

Course: CE42, CE43, IF42 Prerequisite: CEB316
Credit Points: 8 Contact Hours: 3 per week

■ CEB506 CIVIL ENGINEERING PRACTICE 2

Lectures, tutorials, practical work and field trips covering current topics in a specified area of civil engineering at an advanced undergraduate level. Unit is offered irregularly. When offered, the unit material will be advertised by the Head of School.

Course: CE42, CE43, IF42
Prerequisites: Students must be in the final year of their course.
Credit Points: 8 Contact Hours: 3 per week

■ CEB511 TRANSPORT ENGINEERING 2

Students focus on two aspects of transport engineering, rural road upgrading and small urban area transportation planning and road needs. Includes highway upgrading, deficiency analysis, traffic accident analysis, traffic flow simulation, staged development: overtaking lanes and rural intersection design; application of four-step transportation planning models, surveys, zone selection, network development, trip generation, distribution, assignment, model calibration, future year modelling, evaluation and selection of road needs, sensitivity analysis.

Course: CE42, CE43, IF42 Corequisite: CEB512
Credit Points: 8 Contact Hours: 3 per week

■ CEB512 TRANSPORT ENGINEERING 1

Land use/transport interaction, trip generation, trip distribution, mode choice, transport operations analysis, transport economics, transport capacity, urban road planning principles, urban transit planning, railway, aviation and bulk commodity systems design. Advanced pavement design techniques.

Course: CE42, CE43, IF42 Prerequisite: CEB313
Credit Points: 8 Contact Hours: 3 per week

■ CEB520 FINITE ELEMENT METHODS

Finite element, finite difference and similar numerical techniques. Theoretical and modelling considerations are covered in the context of case studies in structures, soil mechanics and hydraulics.

Course: CE42, CE43, IF42 Prerequisite: CEB355
Credit Points: 8 Contact Hours: 3 per week

■ CEB531 MASONRY DESIGN

Working stress design. Assumptions, derivation of design formulae for beams, walls and columns with clay and concrete masonry. Masonry materials. Physical properties of masonry materials.

Course: CE42, CE43, IF42
Prerequisites: CEB306, CEB355
Corequisite: CEB293

Credit Points: 8 Contact Hours: 3 per week

■ CEB541 GEOTECHNICAL ENGINEERING 2

Analysis, design and installation of sheetpile walls and

excavation support. Protection of adjacent structures. Analysis, design and installation of pile and pier foundations. Shallow foundations on rock. Rock sockets. Foundations on expansive soils. Site characteristics by in situ testing methods. Selection of soil properties for design.

Course: CE42, CE43, IF42 Prerequisite: CEB341
Credit Points: 8 Contact Hours: 3 per week

■ CEB542 GEOTECHNICAL ENGINEERING 3

Development of marginal lands: trafficability; embankments on soft soil; preloading; vertical drainage; vibroflotation; dynamic compaction and methods of deep foundation improvement. Rock excavation and slope stabilisation. Soil improvement, including mechanical and chemical stabilisation, soil reinforcement and other techniques. Anchoring in soil and rock. Earth and rockfill design and construction.

Course: CE42, CE43, IF42 Prerequisite: CEB341
Credit Points: 8 Contact Hours: 3 per week

■ CEB543 ENVIRONMENTAL GEOHYDROLOGY

An introduction into the investigation and analysis of groundwater flow through porous media, including numerical modelling and contaminant transport.

Course: CE31, CE42, CE43, IF42
Prerequisite: CEB341
Credit Points: 8 Contact Hours: 3 per week

■ CEB551 ADVANCED STRUCTURAL DESIGN

Emphasis on the design of more complex structures. Normally three projects are studied involving some or all of: design in new materials, new analytical techniques, new codes of practice, novel structures.

Course: CE42, CE43, IF42
Prerequisites: CEB201, CEB306, CEB354
Corequisite: CEB408
Credit Points: 8 Contact Hours: 3 per week

■ CEB560 HYDRAULIC ENGINEERING 3

Lectures, tutorial, practical work and site visits examine selected topics in water engineering. Topics chosen from hydrology, mobile bed hydraulics, river hydraulics, hydraulic structures, urban drainage, physical and mathematical modelling.

Course: CE42, CE43, IF42
Prerequisites: CEB261, CEB362
Credit Points: 8 Contact Hours: 3 per week

■ CEB561 COASTAL ENGINEERING

Coastal engineering: wave theory, recording and analysis, wave generation; coastal processes, tides, surges, etc. currents, sediment movement, foreshore protection; coastal inlets, canal systems; planning and design of coastal structures; hydraulic models.

Course: CE42, CE43, IF42 Prerequisite: CEB261
Corequisite: CEB362
Credit Points: 8 Contact Hours: 3 per week

■ CEB564 ENGINEERING SCIENCE 4

Road pavement and building footing appraisal methods; earthworks and reclamation design/testing procedures; local authority/DPI design guidelines for water supply and sewerage reticulation, all fittings and testing; roads earthworks, pavements, surfacing, etc.; stormwater trenching, bedding and backfilling; water/sewer trenching, bedding, testing and backfilling; other services conduits, specifications and estimating procedures; preparation of selected engineering design plans roadworks, stormwater and other services; other engineered services for land developments projects; material selected to suit the student group; costing of engineering services; use of planning figures and unit costs; design office exercises in reading data from plans estimating

costs, and preparing original designs and modifications to roads, water supply, sewerage and other engineered services.

Course: PS47, PS48 **Prerequisites:** CEB364, MED221

Corequisite: CEB464

Credit Points: 6 **Contact Hours:** 3 per week

■ CEB570 WASTE MANAGEMENT

Basic solid waste management (domestic, commercial and industrial wastes); the general principles of industrial liquid waste management, with examples of some important industries.

Course: CE42, CE43, IF42 **Corequisite:** CEB371

Credit Points: 8 **Contact Hours:** 3 per week

■ CEB575 ENVIRONMENTAL IMPACT ASSESSMENT

Introduction to the techniques of environmental management. Environmental impact assessment and the evaluation of critical environmental problems.

Course: CE42, CE43, IF42

Prerequisites: CEB373, CEB493, SCB246

Credit Points: 8 **Contact Hours:** 3 per week

■ CEB701 CIVIL ENGINEERING QUANTITIES 1

The measurement of civil engineering works based on the study of SMM of Civil Engineering Quantities. Detailed study of construction methods, plant, specification and measurement of: earthworks (clearing, compaction and dredging); roadworks (survey, bulk excavation and filling, pavement construction, kerbing, culverts); and bridges (abutments, superstructure, approach embankments, safety structures, types of bridge structures, foundations, prestressed concrete). It includes a brief introduction to computer applications such as earthwork calculations, etc.

Courses: CN31, CN33 **Prerequisite:** CNB341

Credit Points: 4 **Contact Hours:** 2 per week

■ CEB901 CIVIL ENGINEERING QUANTITIES 2

Further study of SMM for industrial engineering construction leading to the measurement of dams, earthworks, storage volumes, etc.; refinery and processing plant, pipework, vessels, tanks, instrumentation, electrical commissioning, scaffold, shut down maintenance; pipelines, environmental assessment, construction, stations; mining, plant and equipment, conveyors, processing plant, etc.; oil and gas, offshore platforms, fabrications, etc.; cost engineering and cost control on engineering projects.

Course: CN33 **Prerequisite:** CEB701

Credit Points: 4 **Contact Hours:** 2 per week

■ CEP107 CONSTRUCTION MANAGEMENT & ECONOMICS

The management of operational features of engineering practice. Topics include engineering economics, contracts, plant and labour considerations of concern to the engineer and manager.

Courses: CE63, CE74

Credit Points: 8 **Contact Hours:** 2 per week

■ CEP109 MUNICIPAL LAW & REGULATIONS

The legislative framework for municipal engineering in Queensland. The various acts and regulations affecting the practising municipal engineer including powers and responsibilities are covered.

Courses: CE63, CE74

Credit Points: 8 **Contact Hours:** 2 per week

■ CEP127 ROAD & TRAFFIC ENGINEERING

Urban traffic management, parking systems, surveys, intersection analysis; the design and evaluation of the urban road network; design of rural roads and pavement structures; pavement management.

Courses: CE63, CE74

Credit Points: 12 **Contact Hours:** 3 per week

■ CEP128 MUNICIPAL ENGINEERING PLANNING

The principles of town and regional planning for municipal engineers in Queensland. The objectives and methodology of planning, practical problem solving, legislation and other factors of concern to the municipal and development engineer.

Courses: CE63, CE74

Credit Points: 12 **Contact Hours:** 3 per week

■ CEP131 ENGINEERING MANAGEMENT & ADMINISTRATION

Management principles and functions. Strategic and tactical planning, forecasting, decision-making. Budgeting and controls in organisations, techniques of project control. Human resources, managing change and development. Formulation of policy within a local authority. Local authority internal organisation, management, powers, responsibilities and functions, accounting and budgetary cycles, sources of finance and expenditure patterns.

Courses: CE63, CE74, IF64

Credit Points: 12 **Contact Hours:** 3 per week

■ CEP172 WATER QUALITY ENGINEERING

Liquid wastes and their effect on receiving waters. Dispersion and decay of pollutants in the water environment. Water quality standards and objectives.

Courses: CE63, CE74

Credit Points: 8 **Contact Hours:** 2 per week

■ CEP174 PUBLIC HEALTH ENGINEERING PRACTICE

Water supply network analysis, water sources, reservoirs, pumps, water hammer, sewerage systems, pump stations, corrosion, water quality, water and wastewater treatment

Courses: CE63, CE74

Credit Points: 12 **Contact Hours:** 3 per week

■ CEP200 PROCESS MODELLING

Role of models in engineering design and investigation. Principles of modelling techniques and their uses, limitations and relevant applications.

Courses: CE63, CE74

Credit Points: 8 **Contact Hours:** 2 per week

■ CEP215 ADVANCED TRAFFIC ENGINEERING

Traffic flow theory and traffic management. Analytical and computer analysis routines for urban intersection design, their background and applications.

Courses: CE63, CE74

Credit Points: 8 **Contact Hours:** 2 per week

■ CEP218 TRANSPORTATION ENGINEERING

Techniques for the appraisal of rural and urban area road systems, bus operations, airport design, construction and maintenance.

Courses: CE63, CE74

Credit Points: 12 **Contact Hours:** 3 per week

■ CEP276 ADVANCED TREATMENT PROCESSES

The design and operation of water and wastewater treatment plants, including conventional and alternative processes. Current practice and development.

Courses: CE63, CE74

Credit Points: 8 **Prerequisite:** CEP174 **Contact Hours:** 2 per week

■ CEP277 WASTE MANAGEMENT

Characteristics and analysis of solid wastes. Collection, storage, transportation, handling, recycling and disposal. Sources and characteristics of industrial liquid wastes. Treatment design methodology. Pilot scale modelling and investigation. Case studies of selected classes of industrial wastes.

Courses: CE63, CE74 **Corequisite:** CEP174
Credit Points: 12 **Contact Hours:** 3 per week

■ **CEP290 ENVIRONMENTAL LAW & ASSESSMENT**

Introduction to environmental law. Commonwealth and state legislation. Development controls. Trends in environmental control. The framework for environmental assessment. Description of the environmental setting. Impact assessment and analysis.

Courses: CE63, CE74
Credit Points: 8 **Contact Hours:** 2 per week

■ **CEP310 URBAN TRANSPORTATION PLANNING**

Transportation planning applications; road needs, urban transport, local area planning. Macro land use/transportation and micro urban transportation models; urban transportation zone selection and data needs; trip generation; model splits; surveying.

Courses: CE63, CE74
Credit Points: 8 **Contact Hours:** 2 per week

■ **CEP361 DRAINAGE ENGINEERING**

Drainage engineering for municipal engineers, road and railway designers, irrigation and general civil engineers. Rainfall and runoff models, both rational and computer models; drainage hydraulics of roof, streets, pipes, open channels, retention basins, culverts and bridges; erosion, sedimentation aspects of drainage, costs, planning policies and the law.

Courses: CE63, CE74
Credit Points: 8 **Contact Hours:** 2 per week

■ **CEP491 MUNICIPAL ENGINEERING PRACTICE**

A prescribed program of individual supervised study in a selected area within the field of municipal engineering, involving one or more major assignments together with appropriate tutorials.

Course: CE63
Credit Points: 16 **Contact Hours:** 4 per week

■ **CEP998 PROJECT B**

The student is required to investigate in depth a shorter approved topic than that required in CEP999. The results are presented in a major formal report.

Course: CE74
Credit Points: 20 **Contact Hours:** 5 per week

■ **CEP999 PROJECT A**

The student is required to investigate in depth a substantial approved topic within the range of civil engineering practice and to carry out design, computing, model or experimental design and construction, experimental work and testing. The results are presented in a major formal report.

Course: CE74
Credit Points: 36 **Contact Hours:** 9 per week

■ **CET606 CONSTRUCTION MANAGEMENT**

Construction planning, organisational structure, construction reporting, contract management, human relations, civil engineering plant hire.

Course: CE21
Credit Points: 7 **Contact Hours:** 3 per week

■ **CET704 CIVIL CONSTRUCTION PRACTICE**

Principles of temporary works design; formwork, false work, scaffolding, shoring, de-watering, excavation and earthworks, civil engineering plants; the Construction Safety Act and Regulations.

Course: CE21
Credit Points: 7 **Contact Hours:** 3 per week

■ **CET707 MUNICIPAL ENGINEERING**

Structures and function of local authorities, legislation,

municipal road and street construction, design offices, traffic management, parking, town planning and subdivision, solid waste management, building practice, other municipal engineering aspects, field trip to local authority facilities.

Course: CE21 **Prerequisite:** CET815
Corequisite: CET565, CET775

Credit Points: 7 **Contact Hours:** 3 per week

■ **CET735 ADVANCED LABORATORY TESTING 1**

Testing work to give experience with a range of equipment and testing procedures. Includes field and laboratory testing in a number of selected areas.

Course: CE21
Credit Points: 7 **Contact Hours:** 3 per week

■ **CET787 STRUCTURAL ENGINEERING DRAWING**

Structural engineering drawings covering basic steel work and reinforced concrete works. Reinforcing schedules together with details of steel connections.

Course: CE21
Prerequisites: CET286, CET585, CET655, MET120
Credit Points: 7 **Contact Hours:** 3 per week

■ **CET797 PROJECT 1**

Students undertake a substantial project in their chosen field. Involves the investigation of the topic, performance of tests, design calculations, drawings, etc. and submission of comprehensive report.

Course: CE21 **Prerequisites:** 72 credit points.
Credit Points: 7 **Contact Hours:** 3 per week

■ **CET856 ADVANCED CONSTRUCTION TECHNIQUES**

History of construction; planning and programming including critical path analysis and resource levelling; contracts; crane selection and safety; case studies; detailed and 'fast' estimating techniques.

Course: CE21 **Prerequisite:** CET606
Credit Points: 7 **Contact Hours:** 3 per week

■ **CET876 PLANT OPERATION & MAINTENANCE**

Operation and maintenance of water quality treatment plants; scheduling, labour control, workshop organisation, safety, training, performance monitoring.

Course: CE21 **Prerequisite:** CET606
Corequisite: CET776

Credit Points: 7 **Contact Hours:** 3 per week

■ **CET887 COMPUTER AIDED DRAFTING**

Using mainframe and personal computers for civil and structural drawing presentations. Output from computer design programs as examples. Software usage and limitations, plan compilation and output.

Course: CE21 **Prerequisite:** CET286
Credit Points: 7 **Contact Hours:** 3 per week

■ **CET888 STRUCTURAL DRAWING & DESIGN**

Minor structural design and layout are undertaken. Preparation of advanced structural engineering drawings covering steel, reinforced and prestressed concrete and timber where geometric and physical restraints interact with the structural design process.

Course: CE21 **Prerequisites:** CET286, MET120
Corequisite: CET585, CET655, CET787

Credit Points: 7 **Contact Hours:** 3 per week

■ **CHA110 LABORATORY TECHNIQUES**

Introduces safe and proficient procedures in the laboratory, and gives practice in the manipulation of common laboratory apparatus, equipment and reagents. On completion the student should be able to handle, correctly

and safety, all the basic pieces of laboratory equipment and be familiar with their main functions and limitations. The program includes a formal treatment of laboratory safety and occupational health.

Course: SC15.

Credit Points: 8 Contact Hours: 3 per week

■ CHA140 CHEMISTRY

An integrated course of fundamental chemistry covering: the nature of chemistry; atomic, molecular and nuclear structure; bonding and types of bonds; the structure and nature of matter; molecular formulae, atomic and molecular weights; the periodic classification; reduction/oxidation, chemical equilibria; liquids and solutions and simple phase equilibria in electrolyte solutions; pH and its measurement; carbon chemistry and functional groups; the chemistry and properties of some common laboratory chemicals. Practical applications are emphasised.

Courses: SC15.

Credit Points: 8 Contact Hours: 3 per week

■ CHA210 ANALYTICAL CHEMISTRY 1

A lecture and laboratory program on the theory and techniques of both qualitative and quantitative analysis. Qualitative methods cover anion, cation, as well as simple organic functional group identifications. Titrimetric methods include neutralimetry, redoximetry, precipitometry and compleximetry.

Course: SC15 Prerequisite: CHA110 or CHA111

Credit Points: 12 Contact Hours: 5 per week

■ CHA218 ANALYTICAL CHEMISTRY 1

A lecture and laboratory program on the theory and techniques of titrimetric and gravimetric analysis.

Courses: SC12 Prerequisite: CHA111 or CHA110

Credit Points: 8 Contact Hours: 3 per week

■ CHA219 QUALITATIVE ANALYSIS

The behaviour of a range of common cations and anions towards common laboratory reagents. These reactions form the basis of procedures for the separation and identification of these cations and anions. Qualitative testing for elements in organic molecules together with test procedures for qualitative identification of functional groups in organic molecules.

Courses: SC12 Prerequisite: CHA111 or CHA110

Credit Points: 6 Contact Hours: 3 per week

■ CHA230 CHEMISTRY OF INORGANIC MATERIALS

An extension of the basic atomic and molecular theory introduced in CHA145 to include atomic orbitals, orbital shapes and quantum numbers; radioactive breakdown and applications; bonding, molecular orbitals; hybridisation, shapes of simple molecules relating to their properties; simple coordination chemistry. The occurrence, extraction/manufacture, properties and uses of the elements and the important inorganic compounds derived from a selection of members of the chemical groups.

Courses: SC12 Prerequisite: CHA145

Credit Points: 4 Contact Hours: 2 per week

■ CHA240 INSTRUMENTAL TECHNIQUES

An overview of the principles and practice of modern instrumental analysis, including the nature of electromagnetic radiation and its interaction with matter; use of visible, UV and IR spectroscopy; emission and absorption phenomena; chromatographic techniques and electroanalytical methods. Included also is a requirement for completion of a Senior First Aid Certificate.

Course: SC12, SC15

Prerequisite: CHA110 or CHA111

Corequisite: CHA210

Credit Points: 8 Contact Hours: 4 per week

■ CHA250 ORGANIC CHEMISTRY 1

An introduction to functional group chemistry including hydrocarbons, aromatic compounds, organic halides, alcohols, phenols and ethers and also an introduction to the use of infrared spectroscopy to indicate the presence of particular functional groups.

Course: SC12, SC15

Credit Points: 8 Prerequisite: CHA140

Contact Hours: 3 per week

■ CHA270 PHYSICAL CHEMISTRY 1

The first part of an integrated syllabus of physical chemistry; the fundamental aspects of chemical energetics, solution chemistry, equilibria; practical applications.

Courses: SC12

Credit Points: 8 Prerequisite: CHA145

Contact Hours: 3 per week

■ CHA271 PHYSICAL AND INORGANIC CHEMISTRY 1

This is the first part of an integrated syllabus of physical chemistry covering the fundamental aspects of chemical energies, solution chemistry, equilibria; practical applications. Inorganic chemistry covers atomic theory, the electronic build-up of the elements, bonding and molecular orbitals, and general structure – property relationships for elements and compounds.

Course: SC15

Credit Points: 12 Prerequisite: CHA140

Contact Hours: 5 per week

■ CHA280 CONSUMER CHEMISTRY

A coverage of the chemistry of the 'consumer chemicals' in everyday use in both the home and in the work environment, including foods and food additives, detergents, pesticides, fuels and oils and other products of commercial interest.

Course: SC15

Credit Points: 8 Prerequisite: CHA140

Contact Hours: 3 per week

■ CHA318 INSTRUMENTAL ANALYTICAL CHEMISTRY

A course of lectures and practical work introducing the principles and practices of mass spectrometry, fluorescence spectroscopy and ICP together with further development of selected topics from CHA240.

Courses: SC12 Prerequisites: CHA218, CHA240

Corequisite: CHA319

Credit Points: 8 Contact Hours: 4 per week

■ CHA319 ANALYTICAL CHEMISTRY 2

Lectures and practical work are designed to develop further the basic titrimetric and gravimetric analysis principles introduced in CHA218. The program features the analysis of commercial materials with emphasis on sample dissolution techniques.

Courses: SC12

Credit Points: 6 Prerequisite: CHA218

Contact Hours: 3 per week

■ CHA320 CHEMICAL PROCESS PRINCIPLES 1

Chemical reactors both homogeneous and heterogeneous, unit operations: transport preparation and separation of materials and material and energy balances in chemical processes.

Courses: SC12

Credit Points: 6 Prerequisite: CHA270

Contact Hours: 3 per week

■ CHA350 ORGANIC CHEMISTRY 2

Continues the study of functional groups and includes carbonyl compounds, carboxylic acids and their derivatives, organic nitrogen compounds, including heterocycles, as well as selected polyfunctional compounds such as triglycerides, amino acids and proteins. Further uses of infrared spectroscopy.

Courses: SC12

Credit Points: 8 Prerequisite: CHA250

Contact Hours: 3 per week

■ CHA368 INDUSTRIAL CHEMISTRY

The basic aspects of product and quality control, the underlying fundamental chemistry and the chemical technology involved in, for example, the petroleum and petrochemical industry, the polymer, plastics and adhesive industries, the paint industry, the textile industry, the sugar industry, water treatment plants, the glass and ceramics industry, and the cement industry. Field trips are an integral part of this unit.

Courses: SC12

Prerequisites: CHA230, CHA250, CHA320

Credit Points: 8 **Contact Hours:** 3 per week

■ CHA370 PHYSICAL CHEMISTRY 2

The second part of the integrated syllabus of physical chemistry: chemical kinetics, surface chemistry and elementary electrochemistry.

Courses: SC12

Prerequisite: CHA270

Credit Points: 6 **Contact Hours:** 2 per week

■ CHA410 COMPUTERS IN CHEMISTRY

The use of computers in various aspects of the chemical industry, both in laboratory and plant. The different approaches to laboratory automation and a detailed study of computer control in a selected industry.

Courses: SC12

Prerequisite: CSA259

Credit Points: 8 **Contact Hours:** 3 per week

■ CHA442 INTRODUCTION TO OCCUPATIONAL SAFETY

Basic first aid relevant to laboratory, plant and field situations; principles and practice of safe handling of common laboratory chemicals; safety aspects of laboratory design.

Courses: SC12

Credit Points: 4 **Contact Hours:** 2 per week

■ CHA550 ORGANIC CHEMISTRY 3

The chemistry and uses of organic compounds encountered in industry, such as agricultural chemicals, fats and oils, waxes, detergents, dyes, drugs, elastomers, fibres, adhesives and cellulose derivatives.

Courses: SC12

Prerequisite: CHA350

Credit Points: 8 **Contact Hours:** 3 per week

■ CHA610 INDUSTRIAL ANALYSIS

A course involving the use of quantitative techniques in the analysis of commercially important materials, including ores, cement, fertiliser, fats, oils and sugar products.

Courses: SC12

Prerequisites: CHA318, CHA319

Credit Points: 8 **Contact Hours:** 3 per week

■ CHA670 PHYSICAL CHEMISTRY 3

The third part of the integrated syllabus of physical chemistry: covers the areas of applied electrochemistry, corrosion, distillation and extraction. Practical applications are emphasised.

Courses: SC12

Prerequisite: CHA370

Credit Points: 8 **Contact Hours:** 3 per week

■ CHB001 INTRODUCTORY CHEMISTRY

For students without a pass in Senior Chemistry. Scientific measurement, atomic structure, periodic table, chemical equations, stoichiometry and calculations, chemical bonding, chemical reactivity, acids and bases, redox systems, matter, thermodynamics, enthalpy, heat of reactions, organic chemistry.

Courses: SC30

Credit Points: 6 **Contact Hours:** 3 per week

■ CHB002 INTRODUCTION TO ENGINEERING CHEMISTRY

The foundations of the principles of chemistry; the basic concepts of stoichiometry; properties of the elements of the periodic table; chemical equilibria, acids and bases; offered for engineering students without sound achievement in chemistry and serves as the foundation

for CHB344 and CHB346.

Courses: CE31, CE42, EE43, ME45

Credit Points: 2 **Contact Hours:** 1 per week

■ CHB003 ENGINEERING CHEMISTRY (B)

The chemistry of carbon: covalent bonding; families of organic compounds, functional groups, their properties and reactions; bio-molecules and polymers, carbohydrates, lipids, proteins, enzymes.

Course: ME46

Prerequisite: CHB002 (or exemption)

Credit Points: 4 **Contact Hours:** 3 per week

■ CHB142 CHEMISTRY 1

Atomic theory and chemical bonding. Inorganic chemistry: classification of inorganic compounds; nomenclature and chemical reactions of selected inorganic compounds; safety and material safety data sheets; equations and calculations. Chemical analysis: acidimetry and alkametry, indicators, redox, precipitometry, accuracy, precision. Physical chemistry: aqueous solutions and biological systems; colloids and body fluids; redox processes and their application to life science. Organic chemistry: introductory organic chemistry including the essential function of organic compounds in biological systems, concepts of frameworks and functional groups, naming organic compounds, the principal types of reactions in organic chemistry.

Courses: LS36, OP42, PU42, PU44, PU45, PU49, SC30

Credit Points: 12 **Contact Hours:** 6 per week

Incompatible with: CHB182

■ CHB149 PRINCIPLES OF CHEMISTRY

For students without a pass in Senior Chemistry this unit combines introductory chemistry with an introduction to laboratory techniques and practice in the manipulation of common elementary laboratory apparatus, equipment and reagents.

Course: PU49

Credit Points: 12 **Contact Hours:** 6 per week

■ CHB173 CHEMISTRY 1A

States of matter: gases, liquids, solids; kinetic theory of gases, real gases; thermodynamics: forms of energy, work and heat; thermochemistry, enthalpies of formation, combination, etc.; thermochemical calculations; entropy, force energy, spontaneity of reactions; equilibria: equilibrium constants, homogeneous and heterogeneous equilibria; ionic equilibria – acids and bases, pH, buffer solutions, acid-base titrations; kinetics: rates of chemical processes, dependence of rate on concentration, order of reaction, integrated rate equations; experimental methods; temperature dependence of rate constant; catalysis; conductance: introduction to electrochemistry; bonding theory and foundations of spectroscopy: quantum theory, classical mechanics; the dynamics of microscopic systems, Schrodinger equation, translational, rotational and vibrational motions; atomic spectra and structure, quantum numbers and orbitales, electron spin.

Course: CH32

Prerequisites: Year 12 Chemistry – Sound Achievement or CHB001

Credit Points: 12 **Contact Hours:** 6 per week

■ CHB182 CHEMISTRY 1

Chemical stoichiometry; thermochemistry; atomic structure; chemical bonding; chemical reactions; carbon compounds; states of matter; chemical equilibrium; acids and bases; ions and ionic equilibria.

Courses: ED50, SC30

Prerequisites: Year 12 Chemistry – Sound Achievement or CHB001.

Credit Points: 12 **Contact Hours:** 6 per week

Incompatible with: CHB142

■ CHB183 CHEMISTRY 1B

Fundamental studies in two of the three sub-discipline areas of chemistry – inorganic chemistry and organic chemistry; the periodic table; acids, bases and salts; chemical reactions and stoichiometry; chemistry of hydrogen; chemistry of oxygen; principles of bonding in compounds of carbon; structural and electrical effects in compounds of carbon; chemical reactivity of organic molecules; radical reactions of organic hydrocarbons; mechanism and industrial significance, halocarbons and industrial solvents; addition reactions of alkenes, mechanism and industrial significance, polymers and plastics.

Course: CH32

Prerequisites: Year 12 Chemistry – Sound achievement or CHB001

Credit Points: 12 **Contact Hours:** 6 per week

■ CHB213 CONCEPTS OF ANALYTICAL CHEMISTRY

Scope and limitation of analytical chemistry; role of analytical chemistry in society and technology; laboratory equipment and safety; chemical safety; types of analyses; analytical methodology; data handling; an overview of advanced analytical techniques.

Courses: CH32, ED50, SC30

Prerequisites: CHB173 or CHB182

Credit Points: 12 **Contact Hours:** 5 per week

■ CHB242 CHEMISTRY 2

Physical chemistry: Calorie counting – the underlying principle, first and second laws of thermodynamics; gases and respiration, Boyle's Law and the breathing process, Charles' Law, Henry's Law and oxygen hyperbaric therapy, Graham's Law; Speed control of chemical and biochemical processes. Inorganic chemistry: biologically important inorganic compounds, salts, coordination compounds and phosphate esters. Organic chemistry: the chemistry of hydrocarbons, stereochemistry, functional group chemistry, polyfunctional compounds, biologically important organic compounds including sugars, polycarboxylic acids, lipids, peptides and proteins, heterocyclic compounds.

Courses: LS36, OP42, PU42, PU44, PU49, SC30

Prerequisite: CHB142

Credit Points: 12 **Contact Hours:** 6 per week

Incompatible with: CHB282

■ CHB253 CHEMISTRY 2B

Buils on the fundamental concepts studied in Chemistry 1B CHB183 and develops a knowledge of organic mechanism as a tool for understanding the nature of organic chemical change; the use of modern spectroscopic techniques in structure elucidation.

Course: CH32

Prerequisite: CHB183

Credit Points: 12 **Contact Hours:** 5 per week

■ CHB259 ORGANIC CHEMISTRY

The chemistry of carbon; covalent bonding; families of organic compounds, their properties and reactions; biomolecules and polymers, carbohydrates, lipids, proteins, enzymes.

Course: PU49

Prerequisite: CHB001

Credit Points: 12 **Contact Hours:** 5 per week

■ CHB282 CHEMISTRY 2

Atomic structure; chemical bonding; thermo-dynamics; oxidation and reduction; electrochemistry; coordination chemistry; metals, metallurgy, transition elements; silicon, silicates, semiconductors; stereochemistry and optical activity; alcohols, phenols, ethers, amines; aldehydes and ketones, carboxylic acids and functional derivatives of carboxylic acids; infrared spectroscopy.

Courses: ED50, SC30

Prerequisite: CHB182

Credit Points: 12 **Contact Hours:** 6 per week

■ CHB283 CHEMISTRY 2A

Continuation of the fundamental studies already commenced in two of the three sub-discipline areas of chemistry. Thermodynamics; surface chemistry; equilibrium electrochemistry; liquids and solutions; the Phase Rule. Chemistry of non metals; chemistry of metals; coordination chemistry; nuclear chemistry.

Course: CH32

Prerequisites: CHB173, CHB183, MAB200, PHB122

Credit Points: 12 **Contact Hours:** 5 per week

■ CHB289 ORGANIC & PHYSICAL CHEMISTRY

Physical chemistry: Calorie counting – the underlying principle, first and second laws of thermodynamics; gases and respiration, Boyle's Law and the breathing process, Charles Law, Henry's Law and oxygen hyperbaric therapy, Graham's Law; Speed control of chemical and biochemical processes. Organic chemistry: the chemistry of hydrocarbons, stereochemistry, functional group chemistry, polyfunctional compounds, biologically important organic compounds including sugars, polycarboxylic acids, lipids, peptides and proteins, heterocyclic compounds.

Course: PU45

Prerequisite: CHB142

Credit Points: 8 **Contact Hours:** 4 per week

Incompatible with: CHB242, CHB282

■ CHB292 APPLIED SCIENCE FOR DESIGNERS 2

Chemistry for environmental design; basic chemical properties of common materials, natural and artificial; chemical processes in buildings and artefacts.

Course: BN30

Credit Points: 4 **Contact Hours:** 2 per week

■ CHB313 ANALYTICAL CHEMISTRY 3

Analytical techniques including volumetric glassware, basic laboratory equipment, laboratory balances (toppan and analytical), sampling, sample dissolution principles; neutralimetry; redoximetry; precipitometry; compleximetry; gravimetry; treatment of results; instrumental methods.

Courses: CH32, ED50, SC30

Prerequisites: CHB253, CHB282 or CHB283

Credit Points: 12 **Contact Hours:** 5 per week

■ CHB333 INORGANIC CHEMISTRY 3

Coordination chemistry; bonding and structure of metal complexes including crystal field theory and valence bond theory; an introduction to group theory; spectroscopic terms; solution chemistry – the structure of water; aqueous solutions; inorganic properties of water; distribution diagrams; hydrolysis; EH/pH diagrams; bioinorganic chemistry – biological significance of ligands and metals; HSAB theory; complex equilibria; applications with examples of selected bioinorganic systems – proteins, haem, etc.; chemistry of lanthanides and actinides; chemistry of selected non-metals; chemistry of precious metals.

Courses: CH32, ED50, SC30

Prerequisites: CHB282 or CHB283

Credit Points: 12 **Contact Hours:** 5 per week

■ CHB346 ENGINEERING CHEMISTRY C

Specialised chemistry unit designed for civil engineers and includes such topics as PH control; the chemistry of materials; polymers and composites; corrosion and its prevention.

Course: CE42

Prerequisites: CHB002 or equivalent

Credit Points: 4 **Contact Hours:** 2 per week

■ CHB352 ORGANIC CHEMISTRY 3

Fundamentals of organic reactions; major mechanistic classes, nucleophilic substitution, elimination, electrophilic addition, nucleophilic addition,

electrophilic substitution; ultraviolet spectroscopy: electronic transitions, chromophores, bathochromic and hypsochromic shifts, sampling; infrared spectroscopy: classification of vibrations, effects of: molecular association, conjugation, cumulation, α -halogens, ring and steric strain. Sampling; nuclear magnetic resonance – basic principles, classification of nuclei, the shielding constant. IR spectra, areas and integrals, chemical shifts and coupling. Sampling.

Courses: ED50, SC30 **Prerequisite:** CHB282
Credit Points: 12 **Contact Hours:** 5 per week

■ CHB353 ORGANIC CHEMISTRY 3A

The chemistry of carboxylic acids and their functional derivatives, carbanion chemistry including aldol and Claisen condensations; optical and geometrical isomers, stereochemical formulae, the sequence rules and nomenclature, the polarimeter and specific rotation; conformation of ethane, butane, small rings, cyclohexane and substituted cyclohexanes; ultraviolet spectroscopy; infrared spectroscopy; nuclear magnetic resonance.

Course: CH32 **Prerequisites:** CHB183, CHB283
Credit Points: 12 **Contact Hours:** 5 per week

■ CHB372 PHYSICAL CHEMISTRY 3

Equilibrium electrochemistry; models of the electrified interface, absolute electrode potential. Ionic absorption, electrocapillary curves, surface excess, molecular adsorption; phase rule; derivation of phase rule, applications to one component, binary, condensed and ternary systems; thermodynamics: second and third laws; free energy and chemical equilibrium ideal systems; chemical kinetics: order and molecularity of reactions, temperature effects. Reaction rate theories, complex reactions; bonding theory: orbitals and energies of the hydrogen atom; many electron atoms, molecular orbitals; spectroscopy: interaction of radiation with matter. Principles, instrumental design and applications of rotational, vibrational and electronic spectroscopy.

Courses: ED50, SC30
Prerequisites: CHB282 or CHB283
Credit Points: 12 **Contact Hours:** 5 per week

■ CHB373 PHYSICAL CHEMISTRY 3A

Equilibrium electrochemistry; applied phase chemistry; applied thermodynamics: second and third laws; kinetics: complex reactions, mechanisms; spectroscopy: interaction of radiation with matter.

Course: CH32
Prerequisites: CHB282 or CHB283
Credit Points: 12 **Contact Hours:** 5 per week

■ CHB382 CHEMISTRY 3

Biochemical relevance of pH; instrumental analytical techniques used in the pathology laboratory; the coordination chemistry of biological systems; dyes and stains; thermodynamics and kinetics.

Course: LS36 **Prerequisites:** CHB142, CHB242
Credit Points: 4 **Contact Hours:** 2 per week

■ CHB402 CHEMICALS IN SOCIETY

An introduction to the role of chemistry and its products in our society. Historical and societal aspects are incorporated in the study of a number of relevant applications of chemistry in consumer products. Topics include: chemical hazards, drugs and medicine, water purity, food chemistry, synthetic substances and resources and the environment.

Courses: ED50 only
Prerequisites: CHB001 or equivalent
Credit Points: 12 **Contact Hours:** 5 per week

■ CHB411 ENVIRONMENTAL ANALYTICAL CHEMISTRY

Lectures and practicals in the biological sciences dealing with the principles and application of sampling, and

electrometric/spectroscopic/flame separation to the analysis of materials from the biosphere.

Courses: PU42, PU44, SC30
Prerequisites: CHB242 or CHB282
Credit Points: 8 **Contact Hours:** 4 per week
Incompatible with: A major in Chemistry or CHB313

■ CHB423 CHEMICAL TECHNOLOGY 4

The chemical industry; process flowsheets; sources and interpretation of data; industrial stoichiometry; material and energy balance calculations for both principles of particle mechanics and their applications in solids handling, crushing and grinding; classification; solid-liquid separation operations; solid-fluid contacting operations; fluid mechanics and their applications in storage, transport, mixing and dispersing operations; liquid-liquid extraction operations.

Courses: CH32, ED50, SC30
Prerequisites: PHB122, CHB373 or CHB372
Credit Points: 12 **Contact Hours:** 5 per week

■ CHB453 ORGANIC CHEMISTRY 4

A critical analysis of the chemistry of five and six-membered heterocyclic systems with a single hetero atom; preparation, stability and applications to organo synthesis of the main group organometallic compounds; rearrangement reactions which involve 1, 2-shifts to electron-deficient elements; principles and practice of thin-layer chromatography, gas-liquid and high performance liquid chromatography in the separation and analysis of organic compounds.

Courses: CH32, ED50, SC30
Prerequisites: CHB352 or CHB353
Credit Points: 12 **Contact Hours:** 5 per week

■ CHB466 ENVIRONMENTAL CHEMISTRY

An introduction to environmental chemistry for engineers. Introduces chemistry of environmental processes in atmosphere and hydrosphere. Effects of pollutants on the environment. Review of analytical techniques. Global issues including greenhouse, acid rain and ozone depletion.

Course: CE42
Credit Points: 6 **Contact Hours:** 3 per week

■ CHB473 PHYSICAL CHEMISTRY 4

Thermodynamics; surface chemistry; dynamic electrochemistry; chemical kinetics.

Courses: CH32, ED50, SC30
Prerequisites: CHB372 or CHB373
Credit Points: 12 **Contact Hours:** 5 per week

■ CHB513 INSTRUMENTAL ANALYSIS 5

Quality assurance, data analysis, trace analysis, methods reliability, accuracy, precision, sensitivity, selectivity, limit of detection, comparative studies; atomic spectroscopy, theory and instrumentation; mass spectrometry, introductory theory and instrumentation; liquid chromatography, ion chromatography, practices and principles.

Courses: CH32, SC30
Prerequisites: CHB313, CHB372, CHB373, CHB453
Credit Points: 12 **Contact Hours:** 5 per week

■ CHB523 CHEMICAL TECHNOLOGY 5

Principles of heat transfer and their applications in heat exchange and evaporative operations; distillation; principles of mass transfer in gas absorption psychrometry, drying and membrane operations. Physical property (thermodynamic and transport) estimation techniques for gases, liquids and solids. Introduction to process simulation and analysis with the aid of Aspen software.

Courses: CH32, SC30
Prerequisites: CHB423, CHB473
Credit Points: 12 **Contact Hours:** 5 per week

■ CHB533 INORGANIC CHEMISTRY 5

Chemistry of selected metalloids; organometallic chemistry; inorganic reaction mechanisms; special interest metals; development of principles of group theory; symmetry operations and inorganic IR spectra; UV-visible spectra; bioinorganic chemistry of special molecules; lasers and inorganic chemistry.

Courses: CH32, SC30 Prerequisite: CHB333
Credit Points: 12 Contact Hours: 5 per week

■ CHB553 ORGANIC CHEMISTRY 5

Principles of retrosynthesis, concepts of functional group equivalence and interconversions, disconnections, synthons, strategy and tactics, selectivity and control, protecting groups. Synthesis of the major classes of organic compounds, including difunctional compounds, by carbon-carbon bond formation. Selectivity in oxidation and reduction. Introduction to the use of computers in synthesis design. Sources of raw materials for organic chemicals preparation of synthesis ('syn') gas, chemical conversions using syn gas, reactions of alkenes and aromatic feedstocks to produce common chemicals, preparation and chemistry of polymers, the industrial preparation of selected pharmaceuticals.

Courses: CH32, SC30 Prerequisite: CHB453
Credit Points: 12 Contact Hours: 5 per week

■ CHB573 PHYSICAL CHEMISTRY 5

Kinetics; colloid chemistry; phase equilibria; quantum mechanics; statistical mechanics.

Courses: CH32, SC30 Prerequisite: CHB473
Credit Points: 12 Contact Hours: 5 per week

■ CHB603 PROJECT

A variety of chemical problems reflecting teaching, research and consultancy interest of the staff.

Courses: CH32, SC30
Prerequisites: One of CHB573, CHB553 or CHB533 and CHB513 or CHB523
Credit Points: 12 Contact Hours: 5 per week

■ CHB613 INSTRUMENTAL ANALYSIS 6

Instrumental analysis including the principles and practices of XRF, thermal analysis, electrometric methods including voltametry, amperometry; data acquisition, methods of automated analysis, flow-based analysers, robotics, computer networks, laboratory information management systems, chemical databases; chemometrics, optimisation techniques, multiple regressions, advanced quality assurance, inter-laboratory comparisons; computer interfacing, microprocessor controlled instruments, A-D/D-A converters, I/O methods including polling, interrupt techniques, direct memory access.

Courses: CH32, SC30 Prerequisite: CHB513
Credit Points: 12 Contact Hours: 5 per week

■ CHB623 CHEMICAL TECHNOLOGY 6

Sources of chemicals and energy. Chemical reaction engineering, equilibrium thermodynamics and applications in chemical process analysis. Process synthesis. Process engineering costing, profitability analysis, network analysis, optimisation. Process simulation and case study analysis using Aspen software.

Courses: CH32, SC30 Prerequisite: CHB523
Credit Points: 12 Contact Hours: 5 per week

■ CHB643 APPLIED SPECTROSCOPY

Nuclear magnetic resonance spectroscopy; vibrational spectroscopy; remote spectroscopy; Uv/vis and fluorescence spectroscopies.

Courses: CH32, ED50, SC30
Prerequisites: CHB372 or CHB373 and CHB352 or CHB353
Credit Points: 12 Contact Hours: 5 per week

■ CHB653 APPLIED BIOLOGICAL CHEMISTRY

The emerging importance of secondary plant metabolites in medicine; the main biosynthetic pathways leading to secondary plant metabolites; mechanistic aspects of enzyme reactions and the importance of phosphate; a detailed study of a selection from the main biosynthetic pathways; structural determination and synthesis of selected secondary metabolites.

Courses: CH32, SC30 Prerequisite: CHB553
Credit Points: 12 Contact Hours: 5 per week

■ CHB663 ENVIRONMENTAL CHEMISTRY

Toxicology; water quality, its assessment; modelling reactions in water bodies; air quality; criteria pollutants and health effects; indoor pollutants; monitoring; dispersion of pollutants; control techniques.

Courses: CH32, ED50, SC30
Prerequisites: CHB372 or CHB373
Credit Points: 12 Contact Hours: 5 per week

■ CHB693 MATERIALS CHEMISTRY

Properties of materials; metals and alloys; metallic corrosion; cements, ceramics and glasses; polymers and composites.

Courses: CH32, ED50, SC30 Prerequisite: CHB473
Credit Points: 12 Contact Hours: 5 per week

■ CHB840 ELECTIVE STUDIES 2

Provides students with a further opportunity to undertake advanced studies on a topic of particular relevance to their research project; tailored to suit individual students but the topics studied would normally be in specific areas of physical chemistry, analytical chemistry, inorganic chemistry or organic chemistry but may be in a different area from that chosen in CHB740. A supervised reading program is involved and the unit may also include a formal lecture program. Relevant material from other accredited courses may be included as part or all of the requirement for this unit as directed by the Course Coordinator and Head of School.

Course: SC60
Credit Points: 6 Contact Hours: 2 per week

■ CHB880 ADVANCED TOPICS IN CHEMISTRY 2

A selection of advanced topics in the areas of physical, organic and inorganic chemistry. The topics offered reflect the expertise of the academic staff as well as the needs of the students. Both units are assessed at the end of the year.

Course: SC60
Credit Points: 24 Contact Hours: 6 per week

■ CHN701 TOPICS IN ADVANCED CHEMISTRY 1

A series of lectures and/or a reading program and/or selected laboratory exercises designed to provide the student with the appropriate theoretical and practical background, at an advanced level, necessary for the completion of a research program.

Course: SC80 Credit Points: 12

■ CHN704 RESEARCH TECHNIQUES

Development of theoretical and laboratory skills required to enable rapid progress with the research proposed for Stage 2 of the program.

Course: SC80 Credit Points: 44

■ CHN710 CHEMICAL INSTRUMENTATION

Chemical instrumentation and electronics required for advanced level operation of scientific instrumentation.

Course: SC80 Contact Hours: 12

■ CHN720 CHEMOMETRICS

The concepts of chemical data acquisition and interpre-

tation; computational methods and existing software packages for statistical analysis in chemistry; statistical methods in quality and process control; sampling procedures; multivariate analysis and optimisation techniques.

Course: SC80 Credit Points: 12

■ **CHN730 ADVANCED PHYSICAL METHODS IN CHEMISTRY**

The theoretical and practical principles of selected physical methods in chemistry.

Course: SC80 Credit Points: 12

■ **CHN740 LABORATORY TECHNIQUES FOR PREPARATIVE CHEMISTRY**

The experimental techniques for the preparation and isolation of pure substances.

Course: SC80 Credit Points: 12

■ **CHN801 TOPICS IN ADVANCED CHEMISTRY 2**

See CHN701.

Course: SC80 Credit Points: 12

■ **CHP120 BIOCHEMICAL ENGINEERING**

The application of biological organisms, systems and processes to productive level activities; specific areas are in fermentation, bioprocessing and enzyme technology. Topics include: fermentation processes; microbial physiology and environmental factors in processing operations; fermentation kinetics and modelling; aeration and agitation; sterilisation; bio-reactors; and scale-up. Other topics are selected from animal cell culture, protein biotechnology, downstream processing and bio-process economics.

Courses: LS65, LS70, SC60, SC80
Credit Points: 12 Contact Hours: 5 per week

■ **CHP220 PRINCIPLES OF BIOPROCESSING**

The principles and practices necessary for the optimum and safe production of bioorganics and biological chemicals (e.g. organic chemicals, pharmaceuticals, proteins, etc.) derived from biological systems. An emphasis is placed on utilising recombinant organisms (microbial, plant, animal and insect cells). Such systems create special technical problems and challenges in bioprocessing and these are examined at the productive (fermentation and induction) and bioseparations levels in an integrated way. Where appropriate, such bioprocess analyses consider possible alternatives on a cost-effectiveness basis.

Course: LS70
Credit Points: 12 Contact Hours: 4 per week

■ **CHP320 DOWNSTREAM PROCESSING**

Introduction to the fundamental problems of separation operations important to the recovery of commercial products from biological processes. Topics include: cell recovery and disruption, membrane technology, chromatographic techniques, electro-chemical separation and new bio-separation techniques. Instruction includes case studies and Aspen bio-process simulation.

Course: LS70
Credit Points: 12 Contact Hours: 5 per week

■ **CHP420 BIOPROCESS ENGINEERING LABORATORY**

This laboratory based unit provides instruction and training of bioprocess operations through experimental work linked to explanatory tutorials. Experiments focus on fermentation operations utilising microbial, plant, animal and insect cells (e.g. cell kinetics, product formation, mass transfer problems), applied enzymology, and bioseparations (cell disruption and separation, membrane and chromatographic techniques). In the case of recombinant organisms an integrated approach is taken for fermentation, protein induction, and bioseparation.

There is the opportunity for either a small project or a process plant design.

Course: LS70
Credit Points: 12 Contact Hours: 4 per week

■ **CHP691 ENVIRONMENTAL CHEMISTRY**

The nature and composition of natural and polluted waters; metal ions, gases, redox equilibria complexation and microbial transformation of chemicals in water; water pollution and trace-level substances in water. Environmental chemistry of soils; acid-base equilibria and ion-exchange; chemicals in soil. The nature and composition of the atmosphere; chemical and photochemical reactions in the atmosphere; the oxides of carbon, sulphur.

Courses: CE63, CE74
Prerequisites: Year 12 Chemistry – Sound Achievement or CHB001.

Credit Points: 8 Contact Hours: 5 per week

■ **CHP920 TECHNOLOGY ASSESSMENT & FORECASTING**

Technology assessment processes and strategies; comprising of: problem definition; technology analysis; societal, economic, and environmental description and impact analysis; legal and regulatory requirements and consequences and policy implications and analysis. Technological forecasting, substitution and change. This includes the use of quantitative planning models, optimisation techniques and simulation methods; scenario portrayal; case study analysis.

Course: IF64
Credit Points: 12 Contact Hours: 3 per week

■ **CHS200 CHEMISTRY**

Introduction to general and organic chemistry; atoms, molecules, ions; chemical bonding; chemical reactions and equations; solution chemistry; acids, bases and chemical equilibrium; gases; electrochemistry and nuclear chemistry; basic chemistry of organic compounds, aliphatic and aromatic.

Course: BN10
Credit Points: 6 Contact Hours: 3 per week

■ **CNB001 PROFESSIONAL PRACTICE 1A**

The wide range of experiences and responsibilities will provide for the student a greater understanding of the material they are exposed to in the course. It is not possible to detail for each semester the experience required due to the varied employment opportunities available to quantity surveyors in the professional offices and in the construction industry. Approved employment could be with a professional quantity surveying firm. Approved experience with other employers must be under the supervision of a qualified quantity surveyor. This could be with a building/civil engineering contractor, property developer, building or project management consultant, public authorities or major corporate bodies.

Course: CN43 Prerequisites: In final 3 part-time years
Credit Points: 9 Contact Hours: 3 per week

■ **CNB002 PROFESSIONAL PRACTICE 2A**

The wide range of experiences and responsibilities will provide for the student a greater understanding of the material they are exposed to in the course. It is not possible to detail for each semester the experience required due to the varied employment opportunities available to quantity surveyors in the professional offices and in the construction industry. Approved employment could be with a professional quantity surveying firm. Approved experience with other employers must be under the supervision of a qualified quantity surveyor. This could be with a building/civil engineering contractor, property developer, building or project management consultant, public authorities or major corporate bodies.

Course: CN43

Prerequisites: In final 3 part-time years
Credit Points: 9 **Contact Hours:** 3 per week

■ **CNB003 PROFESSIONAL PRACTICE 1A**

The wide range of experiences and responsibilities whilst in approved employment will provide for the student a greater understanding of the material they are exposed to in the course. It is not possible to detail for each semester the experience required due to the varied employment opportunities in the construction industry. Approved employment would be with a building/civil engineering contractor; property developer; building and project management consultant; contracting sub-contractor or supplier; building research; tertiary education; local, state and federal government control and supervisory positions; corporate bodies involved in property maintenance and management.

Course: CN41 **Prerequisites:** In final 3 part-time years
Credit Points: 9 **Contact Hours:** 3 per week

■ **CNB004 PROFESSIONAL PRACTICE 2A**

The wide range of experiences and responsibilities whilst in approved employment will provide for the student a greater understanding of the material they are exposed to in the course. It is not possible to detail for each semester the experience required due to the varied employment opportunities in the construction industry. Approved employment would be with a building/civil engineering contractor; property developer; building and project management consultant; contracting sub-contractor or supplier; building research; tertiary education; local, state and federal government control and supervisory positions; corporate bodies involved in property maintenance and management.

Course: CN41 **Prerequisites:** In final 3 part-time years
Credit Points: 9 **Contact Hours:** 3 per week

■ **CNB005 MEASUREMENT OF CONSTRUCTION 1**

Introduction to quantity surveying including the work of the quantity surveyor and his/her relationship with other members of the building industry. A study of mensuration and formulae involved in the calculation of length, area and volume. Detailed study and instruction in the process and methods of taking off and billing of quantities in the trades roofer and roof plumber, plasterer, paviour, tiler and terrazzo worker, joiner, ironmonger, glazier and painter.

Courses: CN31, CN33
Prerequisites: CNB151, SNB154
Credit Points: 6 **Contact Hours:** 3 per week

■ **CNB006 MEASUREMENT OF CONSTRUCTION 2**

The process and methods of taking off and billing quantities for the trades of excavator, concreter, bricklayer and blocklayer, and carpenter.

Courses: CN31, CN33 **Prerequisite:** CNB005
Credit Points: 6 **Contact Hours:** 3 per week

■ **CNB009 MEASUREMENT OF CONSTRUCTION 3**

Detailed study and instruction in the process and methods of taking off and billing quantities in more complex building solutions for the trades of excavator, concreter, bricklayer and blocklayer, underpinning, pier and beam RC frame and suspended slabs.

Courses: CN31, CN33
Prerequisites: CNB006, CNB254
Credit Points: 4 **Contact Hours:** 2 per week

■ **CNB010 MEASUREMENT OF CONSTRUCTION 4**

Detailed study and instruction in the process and methods of taking off and billing quantities for the trades of

asphalter and built up roofing, demolisher, mason, structural steel and precast concrete.

Courses: CN31, CN33 **Prerequisite:** CNB009
Credit Points: 4 **Contact Hours:** 2 per week

■ **CNB013 BUILDING SERVICES 1 HVAC**

Minimum standards of ventilation, centrifugal and axial flow fan applications; ductwork, accessories, layout, construction and installation; requirements for human comfort in air-conditioning; the ASHRAE Comfort Chart; refrigeration; air-conditioning systems, composition, cost, application, construction and installation; heating, fuel types, efficiency, capital and annual costs; effect of building ordinances.

Courses: CN31, CN33, PU42 **Corequisite:** CNB253
Credit Points: 4 **Contact Hours:** 2 per week

■ **CNB014 BUILDING SERVICES 2 ELECTRICAL**

Electricity supply and distribution; high and low tension supply; measuring current, cut-outs, intake and distribution; internal distribution; large supply installation, sub-station; fuse and switch gear; wiring systems and circuits; conduit and cables; joint boxes. Multi-box switching; heading circuits; earth connections, protection of conduit, conductor and accessories against mechanical damage, weather dampness, fire, electric shock; fibre optic cables in building supervisory systems; assessment of maximum demand and voltage drop; earth tests; tools and handling equipment, fastenings and supports; measurement, control and lighting equipment; accessibility and protection; domestic, industrial and commercial appliances; testing and fault locating.

Courses: CN31, CN33 **Prerequisite:** CNB253
Corequisite: CNB254
Credit Points: 4 **Contact Hours:** 2 per week

■ **CNB021 PROFESSIONAL PRACTICE 1**

The wide range of experiences and responsibilities whilst in approved employment will provide for the student a greater understanding of the material they are exposed to in the course. It is not possible to detail for each semester the experience required due to the varied employment opportunities in the construction industry. Approved employment would be with a building/civil engineering contractor; property developer; building and project management consultant; contracting sub-contractor or supplier; building research; tertiary education; local, state and federal government control and supervisory positions; corporate bodies involved in property maintenance and management.

Course: CN41 **Prerequisites:** In final 3 part-time years
Credit Points: CNB021: 12; CNB022: 12; CNB023: 9; CNB024: 9

Contact Hours: 3 per week

■ **CNB022 PROFESSIONAL PRACTICE 2**

The wide range of experiences and responsibilities whilst in approved employment will provide for the student a greater understanding of the material they are exposed to in the course. It is not possible to detail for each semester the experience required due to the varied employment opportunities in the construction industry. Approved employment would be with a building/civil engineering contractor; property developer; building and project management consultant; contracting sub-contractor or supplier; building research; tertiary education; local, state and federal government control and supervisory positions; corporate bodies involved in property maintenance and management.

Course: CN41 **Prerequisites:** In final 3 part-time years
Credit Points: CNB021: 12; CNB022: 12; CNB023: 9; CNB024: 9

Contact Hours: 3 per week

■ CNB023 PROFESSIONAL PRACTICE 3

The wide range of experiences and responsibilities whilst in approved employment will provide for the student a greater understanding of the material they are exposed to in the course. It is not possible to detail for each semester the experience required due to the varied employment opportunities in the construction industry. Approved employment would be with a building/civil engineering contractor; property developer; building and project management consultant; contracting sub-contractor or supplier; building research; tertiary education; local, state and federal government control and supervisory positions; corporate bodies involved in property maintenance and management.

Course: CN41 **Prerequisites:** In final 3 part-time years
Credit Points: CNB021: 12; CNB022: 12; CNB023: 9; CNB024: 9
Contact Hours: 3 per week

■ CNB024 PROFESSIONAL PRACTICE 4

The wide range of experiences and responsibilities whilst in approved employment will provide for the student a greater understanding of the material they are exposed to in the course. It is not possible to detail for each semester the experience required due to the varied employment opportunities in the construction industry. Approved employment would be with a building/civil engineering contractor; property developer; building and project management consultant; contracting sub-contractor or supplier; building research; tertiary education; local, state and federal government control and supervisory positions; corporate bodies involved in property maintenance and management.

Course: CN41 **Prerequisites:** In final 3 part-time years
Credit Points: CNB021: 12; CNB022: 12; CNB023: 9; CNB024: 9
Contact Hours: 3 per week

■ CNB031 PROFESSIONAL PRACTICE 1

The wide range of experiences and responsibilities will provide for the student a greater understanding of the material they are exposed to in the course. It is not possible to detail for each semester the experience required due to the varied employment opportunities available to quantity surveyors in the professional offices and in the construction industry. Approved employment could be with a professional quantity surveying firm. Approved experience with other employers must be under the supervision of a qualified quantity surveyor. This could be with a building/civil engineering contractor, property developer, building or project management consultant, public authorities or major corporate bodies.

Course: CN43 **Prerequisites:** In final 3 part-time years
Credit Points: CNB031: 12; CNB032: 12; CNB033: 9; CNB034: 9
Contact Hours: 3 per week

■ CNB032 PROFESSIONAL PRACTICE 2

The wide range of experiences and responsibilities will provide for the student a greater understanding of the material they are exposed to in the course. It is not possible to detail for each semester the experience required due to the varied employment opportunities available to quantity surveyors in the professional offices and in the construction industry. Approved employment could be with a professional quantity surveying firm. Approved experience with other employers must be under the supervision of a qualified quantity surveyor. This could be with a building/civil engineering contractor, property developer, building or project management consultant, public authorities or major corporate bodies.

Course: CN43 **Prerequisites:** In final 3 part-time years
Credit Points: CNB031: 12; CNB032: 12; CNB033: 9; CNB034: 9

Contact Hours: 3 per week

■ CNB033 PROFESSIONAL PRACTICE 3

The wide range of experiences and responsibilities will provide for the student a greater understanding of the material they are exposed to in the course. It is not possible to detail for each semester the experience required due to the varied employment opportunities available to quantity surveyors in the professional offices and in the construction industry. Approved employment could be with a professional quantity surveying firm. Approved experience with other employers must be under the supervision of a qualified quantity surveyor. This could be with a building/civil engineering contractor, property developer, building or project management consultant, public authorities or major corporate bodies.

Course: CN43 **Prerequisites:** In final 3 part-time years
Credit Points: CNB031: 12; CNB032: 12; CNB033: 9; CNB034: 9
Contact Hours: 3 per week

■ CNB034 PROFESSIONAL PRACTICE 4

The wide range of experiences and responsibilities will provide for the student a greater understanding of the material they are exposed to in the course. It is not possible to detail for each semester the experience required due to the varied employment opportunities available to quantity surveyors in the professional offices and in the construction industry. Approved employment could be with a professional quantity surveying firm. Approved experience with other employers must be under the supervision of a qualified quantity surveyor. This could be with a building/civil engineering contractor, property developer, building or project management consultant, public authorities or major corporate bodies.

Course: CN43 **Prerequisites:** In final 3 part-time years
Credit Points: CNB031: 12; CNB032: 12; CNB033: 9; CNB034: 9
Contact Hours: 3 per week

■ CNB103 MATERIAL SCIENCE 1

Properties, manufacture, use and analysis of timber, steel, concrete and clay products; investigation of their strength, density, hardness, porosity, plasticity, elasticity and deterioration; investigation and protection against corrosion and fire.

Courses: CN31, CN33 **Corequisite:** CNB151
Credit Points: 4 **Contact Hours:** 2 per week

■ CNB104 MATERIAL SCIENCE 2

Physical and chemical properties of materials and their effect on construction and structural qualities; laboratory and field testing of bricks, mortar, brickwork, concrete, timber, steel; protection of material against corrosion and fire.

Courses: CN31, CN33 **Prerequisite:** CNB103
Corequisite: CNB154
Credit Points: 4 **Contact Hours:** 2 per week

■ CNB112 CONSTRUCTION 2

A continuation of Construction 1 covering masonry buildings including cavity brick, brick veneer, single skin masonry block construction, external cladding and internal linings, all types of roof covering including Super 6 C.F.C., concrete and clay tiles, corrugated and steel tray roof sheetings, slates and shingles, flashings, gutters and downpipes, function and construction of timber and metal windows, doors, stairs, fireplaces, light steel framed construction and pole houses, applied rendered finishes. Environmental science, comfort situations in varying climatic zones and their effect on building construction. Draughting typical details and working drawings.

Courses: CN41, CN43 **Prerequisite:** CNB111
Corequisite: CNB114
Credit Points: 12 **Contact Hours:** 5 per week

■ CNB113 BUILDING TECHNOLOGY 1

A study of the structural materials used in construction – timber, stone, brickwork, concrete, steel and aluminium through an understanding of the basic properties of each. The bias is towards those characteristics which affect the user rather than to the needs of a designer. Particular emphasis is given to the problems which arise through the manufacturing, storage and installation processes. Significance of subject to needs of constructors; statics; bending theory for simple and continuous beams, approximate analysis methods; properties of sections; load transfer; design of simple timber and steel beams and columns for model projects; W33 framing for member sizing, tiedown and timber connection.

Courses: CN41, CN43 **Corequisite:** CNB111
Credit Points: 8 **Contact Hours:** 4 per week

■ CNB114 BUILDING TECHNOLOGY 2

The materials covered in Building Technology 1 are investigated to greater depth through theoretical study and testing. Laboratory work is conducted during the latter part of the subject to reinforce the theoretical concepts and to demonstrate testing procedures. Concepts of masonry design; design theory for reinforced concrete; design of simple concrete footings, slabs on ground, beams, columns, suspended slabs; design of ground slab for Construction subject project; concept of psc design.

Courses: CN41, CN43 **Prerequisite:** CNB113
Corequisite: CNB112
Credit Points: 8 **Contact Hours:** 4 per week

■ CNB116 MEASUREMENT 1

Introduction to Quantity Surveying including the work of a Quantity Surveyor and his/her relationship with other members of the building industry. Introduction to the methodology of 'taking off', investigating the various systems with particular emphasis on the one-step method. A study of mensuration and formulae involved in the calculation of length and volume. Detailed study of 'Introduction' to SMM and detailed study and instructions in the process and methods of taking off and billing quantities in the trades finishes, roofing, doors, windows, hardware, glazing and painting.

Courses: CN41, CN43 **Prerequisite:** CNB111
Corequisite: CNB112
Credit Points: 6 **Contact Hours:** 3 per week

■ CNB118 BUILDING SERVICES 1

A study of macro services to the community including water supply, sewerage, power, gas, telephone and other public services. Requirements of headwork and sewerage reticulations. A study of sanitation, septic tanks, absorption and transpiration beds, stormwater and sewerage disposal and garbage and refuse disposal. Hydraulic engineering services associated with buildings. Water supply (including fire fighting and hot water), sewerage and sanitary plumbing with a study of relevant Acts and laws, including sizing and testing of main and gravity-fed services.

Courses: CN41, CN43 **Prerequisite:** CNB111
Corequisite: CNB112
Credit Points: 6 **Contact Hours:** 2 per week

■ CNB119 CONSTRUCTION 1

Materials, methods and construction in single and two-storey domestic structures with part of ground floor below ground level, site information and investigation, foundations including strip and beam footings and slab on ground, light timber framing code for walls, roofs and suspended floors taking into account the environmental, structural and aesthetic requirements; accounting for costs, dimensional requirements, statutory regulations, life and adaptability and manufacturing and erection requirements; instruction in various types of draw-

ings and mapping used in offices, methods of setting out office drawings for sketch presentation, geometric, perspective and setting out office drawings and details, freehand drawing and sketching; lettering, linework, material indication use of instruments, scales and drawing materials; environmental science, comfort situations in varying climatic zones and their effect on building construction

Courses: CN41, CN43 **Prerequisite:** CNB113
Credit Points: 12 **Contact Hours:** 6 per week

■ CNB121 PROFESSIONAL STUDIES A

Legal system and principles of property law: the institutions of the law; the courts, parliament and the judiciary; the doctrines and methodology of the law including the doctrine of precedence, interpretation of statutes and regulations; law of property – ownership and possession, estates and interests in land, easement, rights and restrictive covenants; party walls, boundary walls, fences and encroachments. Manufacturing systems: the role of manufacturing in the Australian economy; modern concepts in manufacturing systems design; the interrelationship between design, materials selection, manufacturing technologies in relation to product quantity and quality.

Courses: CN41, CN43 **Corequisite:** CNB119
Credit Points: 8 **Contact Hours:** 3 per week

■ CNB124 PROFESSIONAL STUDIES I

The syllabus is project based and student centred, with the student undertaking major pieces of work individually within a group. The student is encouraged to make use of all sources both within and outside the university and to communicate with the community, professionals, practitioners and government officials, etc. The integrated study project work programme will provide a framework with a clear statement of aims and objectives for each part of the program. The projects suggested here for Professional Studies 1-3 relate to construction projects/processes whose emphases progress from technology to building economics to management experience/problems. The project in the first year will draw together mainly rudimentary technology subjects, centred around cottage construction. The project will indicate how related materials from the year's subjects will be developed by student groups and individuals.

Courses: CN41, CN43
Prerequisites: ITB270, CNB117, CNB111, CNB113, COB165

Corequisites: CNB112, CNB114, CNB116, CNB118, PSB910

Credit Points: 8 **Contact Hours:** 3 per week

■ CNB131 MEASUREMENT OF CONSTRUCTION 1A

Subject description as for CNB005.

Courses: CN31, CN33 **Prerequisite:** CNB151
Credit Points: 6 **Contact Hours:** 3 per week

■ CNB145 STRUCTURES 1

The needs of constructors; statics; bending theory for simple and continuous beams, approximate analysis methods; properties of sections; load transfer; design of simple timber and steel beams and columns for model projects; W33 framing manual for member sizing, tiedown and timber connection.

Courses: CN31, CN33 **Corequisite:** CNB151
Credit Points: 4 **Contact Hours:** 2 per week

■ CNB146 STRUCTURES 2

Concepts of masonry design; design theory for reinforced concrete; design of simple concrete footings, slabs of ground, beams, columns, suspended slabs; design of slab for Construction 3 project; concept of PSC design; design of simple steel connections.

Courses: CN31, CN33 Prerequisite: CNB145
Corequisite: CNB154
Credit Points: 4 Contact Hours: 2 per week

■ CNB151 CONSTRUCTION 1

Materials, methods and construction in single and two-storey domestic structures, site information and investigation, foundations, columns, upper floors, external and internal walls, finishes, etc. Environmental, structural and aesthetic requirements accounting for costs, dimensional requirements, statutory regulations, life and adaptability and manufacturing and erection requirements; draughting typical details and working drawings; environmental science, comfort situations in varying climatic zones and their effects.

Courses: CN31, CN33
Corequisites: CNB103, CNB145
Credit Points: 12 Contact Hours: 6 per week

■ CNB154 CONSTRUCTION 2

Continuation of CNB151 properties of materials, and behaviour in manufacturing and construction, effect on form and structure; workshop and studio working details of building components, coordination of building elements.

Courses: CN31, CN33 Prerequisite: CNB151
Corequisites: CNB104, CNB146
Credit Points: 14 Contact Hours: 7 per week

■ CNB161 BUILDING STUDIES 1

The uses of materials and construction in single and two-storey domestic structures, site information, substructure, columns, upper floors, external and internal walls, finishes, etc. Environmental, structural, aesthetic, cost, statutory, dimensional, manufacturing and erection requirements. Factors in creating comfort situations in various climatic zones and their effect on building construction. Draughting: preparation of typical details and working drawings. Physical and chemical properties of materials such as timber, steel, concrete and clay products and how they affect their construction and structural qualities.

Course: CN32
Credit Points: 14 Contact Hours: 5.5 per week

■ CNB162 BUILDING STUDIES 2

The uses of materials and construction in single and two-storey domestic structures under the elements: staircase, roof, internal and external walls, windows, doors, finishes; fireplaces. Environmental, structural and aesthetic requirements, taking account of constraints such as costs, dimensional requirements, statutory regulations, life and adaptability and manufacturing and erection requirements. Draughting: preparation of construction details and drawings.

Courses: CN31, CN33 Prerequisite: CNB161
Credit Points: 9 Contact Hours: 3.5 per week

■ CNB166 URBAN ECONOMICS

Economic processes and spatial context of the city; differentiation of competing land use; location decisions in the urban market; intra-urban location; market failures, externalities and government involvement; transport in the urban environment, urban management; urban issues. Economics of the Australian construction industry.

Course: CN32
Credit Points: 4 Contact Hours: 2 per week

■ CNB171 CONSTRUCTION 1

Materials, methods and construction in single and two-storey domestic structures, site information and investigation, foundations, columns, upper floors, external and internal walls, finishes, etc. Environmental structural and aesthetic requirements accounting for costs, dimensional

requirements, statutory regulations, life and adaptability, manufacturing and erection requirements; draughting typical details and working drawings; environmental science, comfort situations in varying climatic zones and their effects.

Course: PU42
Credit Points: 12 Contact Hours: 6 per week

■ CNB172 CONSTRUCTION 2

Continuation of CNB171. The properties of materials and how they behave in the manufacturing and construction process and how these considerations relate to form and structure. It includes a studio and practical back-up to the lecture program. Students are required to prepare working details of building components, coordination of building elements for specific building use.

Course: PU42 Prerequisite: CNB171
Credit Points: 8 Contact Hours: 4 per week

■ CNB211 CONSTRUCTION 3

Study of materials, methods and construction of low-rise residential, commercial and industrial projects, including equipment handling and site management requirements. Such structures to be examined with regard to the environmental, structural and aesthetic requirements taking account of constraints such as costs, dimensional requirements, statutory regulations, life, adaptability, manufacturing and erection requirements. Low-rise commercial: structural elements including foundations, retaining walls, load-bearing masonry construction, reinforced concrete suspended slabs, and walls; structural steel roof trusses, etc., parapet, balconies and balustrades. Sheet metal and built-up roofing, rainwater goods. Fire and sound resistant materials, components and construction. Suspended, fire and spray finish ceiling. Fittings and built in furniture, etc. Light industrial: Raft, pier and pile foundations and earthworks, including equipment. Structural steel systems including portal frames, girder, trusses, etc. Roof lights. Sheet external wall cladding. Industrial horizontal, vertical, sliding, folding and roller shutter doors. Special floor finishes. Handling equipment. Formwork design: objectives in building formwork, understanding quality, safety and control. Formwork planning, reuse, erecting and stripping schedules. Types of facing material, hardware and fasteners. Loads and pressures on forms and use of design tables. Formwork drawing, detailing, building and erecting. Special techniques and prestressing/post-tensioning. Proprietary formwork and falsework.

Courses: CN41, CN43
Prerequisites: CNB113, CNB112, CNB114, CNB119
Corequisite: CNB213, CNB217, CNB218
Credit Points: 12 Contact Hours: 4 per week

■ CNB212 CONSTRUCTION 4

Building construction: A study of the construction techniques peculiar to multi-storeyed buildings and the implications of working on a major city site. The scope covers site investigation, deep basement excavation, dewatering and construction, structural frame construction, cladding, outfitting and finishes and the significance of services on the construction process. Evolution of building: A study of civilisations from prehistoric to modern times examining systems of construction and their relationship to building techniques and economic value.

Courses: CN41, CN43
Prerequisites: CNB211, CNB213, CNB221
Credit Points: 9 Contact Hours: 5 per week

■ CNB213 BUILDING TECHNOLOGY 3

A study of the non-structural materials used to enclose and decorate buildings, building boards, plaster, glass, asphalt, plastics, non-ferrous metals, concrete products and paint. The behaviour of materials in service will be

examined which includes the effect of ageing, incompatibility, repair and cleaning techniques, and the effects of fire on structural materials. Implications of maintenance and quality inspection. Portal behaviour; design of simple steel connections, plastic versus elastic design; structural bracing; truss analysis; stability of structures during construction; stability of cranes, loads in lifting systems; unbalanced loads during construction; stability of multi-storeyed buildings; loading and design of simple retaining structures. Concrete practice wind load conditions on high rise structures. Multi-rise framed structures.

Courses: CN41, CN43

Prerequisites: CNB113, CNB114

Corequisite: CNB211

Credit Points: 6 **Contact Hours:** 4 per week

■ CNB215 MEASUREMENT 2

Detailed study and instruction in the process and methods of taking off and billing quantities in the SMM trades, groundworks 4.1 to 4.3, concrete 6.1 to 6.4, masonry, woodwork, partitions for simple buildings having a single storey having both suspended and slab on ground construction.

Courses: CN41, CN43

Prerequisites: CNB116, CNB112, CNB119

Corequisite: CNB211

Credit Points: 6 **Contact Hours:** 3 per week

■ CNB216 MEASUREMENT 3

Detailed study and instruction in the process and methods of taking off and billing quantities in the SMM trades, groundworks 4.4, piling 5.2.2., concrete 6.1 to 6.8, structural steel, suspended ceilings, membrane and asphalt roofing, demolition, stonework in multi storey buildings having minor basements, underpinning and reinforced concrete and steel frame with built-up roofing systems.

Courses: CN41, CN43

Prerequisite: CNB215

Corequisite: CNB212

Credit Points: 6 **Contact Hours:** 3 per week

■ CNB217 BUILDING SERVICES 2

Minimum standards of ventilation, centrifugal and axial flow fan applications; ductwork-accessories, layout, construction and installation; requirements for human comfort in air conditioning; the ASHRAE Comfort Chart; principles of refrigeration; air-conditioning systems, composition, cost, application, construction and installation; heating, fuel types, efficiency, capital and annual costs; effect of building ordinances. Mechanical estimating: types, tenders, preliminaries, trade awards and wage rates. Take off procedure, costing and estimating make-up calculations. System costs in relation to building floor area, operating and maintenance costs, builder's allowance for each system.

Courses: CN41, CN43

Corequisite: CNB211

Credit Points: 6 **Contact Hours:** 3 per week

■ CNB218 BUILDING SERVICES 3

Electrical terminology and formula, three-phase concept. Supply Authority Distribution System, line diagrams, high voltage transfer, transformers, load profile, Authority Requirement, Light and Power Acts. Tariffs and metering, energy management, electrical safety. SAA Wiring Rules, maximum demand, diversity, tables, cable sizing and voltage drop, points per circuit, fault levels, fuses, breakers and switchboards. Wiring types, busbars, wiring systems, space required, computer and data systems, fibre optics, accessories. Security, computer power supplies. Lighting, types, design methods, emergency and evacuation systems. Building Supervisory System, justification, hardware, software. Electrical plans, specifications, symbols, CAD. Lightning Protection System. Contractor licensing, testing, tools and appliances. En-

ergy management, solar energy, ice storage, control systems and energy audits. Electrical estimating: types, tenders, preliminaries, trade award and wage rates. Take off procedure, costing and estimating make-up calculations. System costs in relation to building floor area, operating and maintenance cost, builder's allowance for each system.

Courses: CN41, CN43

Prerequisites: CNB118, CNB211

Corequisite: CNB212

Credit Points: 6 **Contact Hours:** 3 per week

■ CNB219 ECONOMICS OF THE CONSTRUCTION INDUSTRY

The economic problem, wants, resources, scarcity, choice; economic systems, features of the macroeconomy; supply and demand characteristics; goods market, factor markets, competitive market structures, business concentration; operations of the construction industry, nature of output; nature of firms, revenue analysis via pricing mechanisms, sales forecasting; production function; break even analysis; business cycle and fluctuations in the construction industry, failure of construction firms; government stabilisation policies and effect on the construction industry; structure change in the Australian and world economies.

Courses: CN41, CN43

Credit Points: 6 **Contact Hours:** 2 per week

■ CNB220 CONSTRUCTION MANAGEMENT

Industry participants and their roles. Basic management principles: planning, leading, organising and controlling. Forms of project delivery, reviewing contract documentation. Site management skills including site organisational structure, site controls, site communications, reporting, project engineering and negotiation skills as applied to subcontractors and suppliers, commissioning and handing over the site. Company marketing and negotiating skills. An analysis of project design and construction technique on project buildability and their effect on site management and organisation. Stress management techniques.

Courses: CN41, CN43

Prerequisites: CNB121, CNB219

Corequisite: CNB212

Credit Points: 6 **Contact Hours:** 2 per week

■ CNB221 BUILDING LEGISLATION

Passing and resolving Acts, regulations and by-laws; knowledgeable site representatives; study of Building Code of Australia, Queensland Home Building Code and Standard Building By-Laws which control the design, construction of building works in Queensland; emphasis on Building Codes in the by laws; a study of the Acts Interpretation Act, and Town Planning Acts. The study of the Workplace Health and Safety Act 1989/90, the regulations that apply and codes of practice. The application of the requirements of this legislation to the production of a Site Safety Management Plan incorporating a 'systems' approach in minimising exposure of the individual or company to prosecution. Practical demonstrations in good scaffolding practice. Case studies in addressing safety on building sites.

Courses: CN41, CN43

Corequisite: CNB211

Credit Points: 6 **Contact Hours:** 4 per week

■ CNB222 ESTIMATING 1

A study of the techniques used in the preparation of detailed estimates of cost for simple structures covering the trades of concreter, carpenter, joiner, bricklayer, plumber, drainer, tiler, plasterer and painter. The industrial overheads applicable to labour are discussed and labour costs are calculated from current awards. The subject draws heavily on the student's knowledge of

construction and on the sequencing of tasks.

Courses: CN41, CN43 **Prerequisite:** CNB215

Corequisites: CNB212, CNB216

Credit Points: 6 **Contact Hours:** 2 per week

■ CNB223 APPLIED COMPUTING 1

A further study of the computer software programs which can be used in the construction and property development processes. Designed to coordinate the practical aspects of the lecture material presented each semester so that students both develop essential practical skills and benefit from cross-fertilisation of the individual subjects. The programs used include spreadsheet and data base software packages. Applied material is drawn from statistics, quantitative operation research methods, and other current subject matter in years 1 and 2 of the course.

Courses: CN41, CN43 **Prerequisite:** ITB270

Credit Points: 6 **Contact Hours:** 2 per week

■ CNB224 PROFESSIONAL STUDIES 2

The project in the second year will draw together more advanced but mainly technology-type subjects. Added breadth is provided with measurement, estimating, building law and management subjects. The project will be a medium high rise residential or commercial project (10 storeys) situated in a commercial zone close to the inner city.

Courses: CN41, CN43

Prerequisites: CNB124, CNB211, CNB212, CNB213, CNB221, CNB215, CNB217, CNB223

Corequisites: CNB212, CNB216, CNB218, CNB220, CNB222, CNB226

Credit Points: 9 **Contact Hours:** 3 per week

■ CNB226 TORTS AND CONTRACT LAW

Law of tort – negligence, professional negligence, duty of care, liability, occupier liabilities; nuisance, fraud and conversion; basic principles, elements, formation and discharge of a contract. Elements of contract, offer, acceptance, certainty and consideration, content of a valid contract, misrepresentation, collateral contract, implied terms: formal requirements and part performance; contract documents and their interpretations remedies for breach of contract; recovery of payment of work done, concept of entire contract substantial performances and quantum meruit.

Courses: CN41, CN43

Prerequisite: CNB121, CNB211

Corequisite: CNB220

Credit Points: 6 **Contact Hours:** 3 per week

■ CNB243 LAW I BUILDING ACTS & REGULATIONS

Passing and resolving Acts, regulations and by-laws; knowledgeable site representatives; study of building code of Australia, Queensland Home Building Code and Standard Building by-laws which control the design, construction and building works in Queensland; emphasis on building codes in the by-laws; a study of the Health Act, Factories and Shops Act, Liquor Act, Acts Interpretation Act, Fire Safety Act and Town Planning acts.

Courses: CN31, CN33 **Corequisite:** CNB254

Credit Points: 5 **Contact Hours:** 2 per week

■ CNB245 MEASUREMENT OF CONSTRUCTION 1B

Methods of taking off and billing quantities in the trades of excavator, concreter, bricklayer, blocklayer and carpenter for simple building.

Courses: CN31, CN33

Prerequisites: CNB131, CNB151, CNB154

Corequisite: CNB253

Credit Points: 6 **Contact Hours:** 3 per week

■ CNB246 MEASUREMENT OF CONSTRUCTION 2B

Methods of taking off and billing quantities in more complex building in the trades of excavator, concreter, bricklayer, blocklayer in simple basement, underpinning, pier and beam, RC frame and suspended slab; taking off and billing in the trades of asphalter, built-up roofing, demolisher, mason, structural steel and precast concrete.

Courses: CN31, CN33

Prerequisites: CNB146, CNB245, CNB253

Corequisite: CNB254

Credit Points: 8 **Contact Hours:** 4 per week

■ CNB247 MATERIAL SCIENCE 3

Atomic structure and bonding and its effects on a material's engineering property; elementary metallurgy of iron and steel; non-ferrous metals and alloys; joining of metals, fatigue, creep, brittle and ductile fracture, corrosion and protection; properties, manufacture, use and analysis of fibrous cement, wood products, ceramics, polymers, paints, sealants and mastic products; investigation into the material's strength, density, hardness, porosity, plasticity, elasticity, deterioration, optical, electrical, thermal and acoustic properties.

Courses: CN31, CN33

Prerequisites: CNB103, CNB104

Corequisite: CNB253

Credit Points: 4 **Contact Hours:** 2 per week

■ CNB253 CONSTRUCTION 3

Study of industrial and multi-storey residential buildings; management, planning, and coordination of construction, site layout, site establishment and material handling processes; draughting and detailed drawings, site visits and/or workshop.

Courses: CN31, CN33

Prerequisites: CNB103, CNB104, CNB154

Corequisites: CNB247, CNB259

Credit Points: 10 **Contact Hours:** 5 per week

■ CNB254 CONSTRUCTION 4

An extension of CNB253 dealing with multi-storey commercial buildings.

Courses: CN31, CN33

Prerequisite: CNB253

Credit Points: 12 **Contact Hours:** 6 per week

■ CNB259 STRUCTURES 3

Portal behaviour; plastic versus elastic design; structural bracing; truss analysis; stability of structures during construction; stability of cranes, loads in lifting systems; unbalanced loads during construction; stability of marine equipment; stability of multi-storeyed buildings; loading and design of simple retaining structures.

Courses: CN31, CN33

Prerequisites: CNB103, CNB104, CNB145, CNB146

Corequisite: CNB253

Credit Points: 4 **Contact Hours:** 2 per week

■ CNB261 BUILDING STUDIES 3

The materials and construction of a range of structures from industrial single to multi-storey residential buildings; substructure, columns and upper floors, staircases, roof, external and internal walls, windows and doors, finishes, fire protection and fittings. Environmental, structural, aesthetic, cost, statutory, dimensional, manufacturing and erection requirements. Drafting: preparation of typical details and working drawings. Material science: a study of the non-structure materials such as building boards, ceramics, glass, plastics, paint from the manufacturing process through to the effects of ageing and problems of cleaning, repair and maintenance.

Course: CN32

Prerequisite: CNB162

Credit Points: 9 **Contact Hours:** 3 per week

■ CNB262 BUILDING STUDIES 4

An extension of CNB261 dealing with multi-storey commercial buildings. It also looks at design appraisal: effect of design on user comfort, safety, energy usage, orientation, materials, layout, services, ageing and aesthetic composition.

Course: CN32

Prerequisite: CNB261

Credit Points: 8

Contact Hours: 3 per week

■ CNB263 VALUATION 1

Basic concepts and principles of real property value. Definitions of value. Process and methods used in property valuation. Ethics factors influencing accuracy of valuations. The comparative approach. Valuations of vacant land and residential property. Valuation inspection and reports. Practical valuation assignments. Summation. Investment valuation; rental value, outgoings.

Course: CN32

Contact Hours: 3 per week

■ CNB268 VALUATION 2

See CNB263.

Course: CN32

Prerequisite: CNB263

Credit Points: 8

Contact Hours: 3 per week

■ CNB301 PMI ADVANCED CONSTRUCTION METHODS

Construction and site management problems encountered by a project manager; case studies having unusual construction problems or techniques; site planning and organisation of projects; material handling and site equipment selection.

Courses: CN31, CN33

Prerequisites: CNB341, CNB254

Corequisite: CNB440

Credit Points: 4

Contact Hours: 2 per week

■ CNB311 CONSTRUCTION 5

Civil engineering construction (building): A study of those aspects of civil engineering construction which impinge on building and land development. The emphasis is placed on an understanding of the efficacy of competing methods including plant selection rather than on a quantified solution. The areas covered are bulk excavation, detailed excavation, dewatering, foundations, pipelines, tunnels, roadworks, bridges and marine structures. Basic weather prediction and the organisation of work in remote locations. Building services – lifts, acoustics, etc.: Transportation of people and goods, passenger, goods and service lifts, planning disposition, control systems and construction; regulatory requirements, approximate traffic calculations; escalators and moving walks, use, widths and ratings, regulatory requirements and construction; planning of lift contracts and sprinklers, detectors, alarms, extinguishers; communication systems; intrusion alarm systems. Building acoustics: external noise propagation, calculations and control for complex source/environment integration. External noise control by insertion, absorption and transmission loss. The management of noise in the built environment.

Courses: CN41, CN43

Prerequisite: CNB212

Credit Points: 9

Contact Hours: 5 per week

■ CNB312 MEASUREMENT 4

Detailed study and instruction in the process and methods of taking off and billing quantities in: The SMM trade groundworks 4.4 and 4.5, piling, concrete 6.5 and 6.7 for the more complex basements and foundation stabilisation systems as encountered in inner city projects and innovative structural systems for columns, floors and walls. Hydraulics and drainage, electrical and mechanical installations, external elements.

Course: CN43

Prerequisites: CNB212, CNB311, CNB118, CNB216,

CNB217, CNB218

Credit Points: 9

Contact Hours: 4 per week

■ CNB313 TIME MANAGEMENT 1

The subject is designed to develop skills in construction planning and control techniques. The planning techniques studied include bar charts, critical path networks, (arrow, precedence and time scale formats). Updating; control and reporting techniques. Line of balance planning method.

Courses: CN41, CN43

Prerequisites: CNB212, CNB216, CNB214, CNB220

Corequisite: CNB323

Credit Points: 9

Contact Hours: 4 per week

■ CNB314 CONTRACT ADMINISTRATION 1

Contractual arrangements and delivery systems. Contract planning and control. Reporting and control systems, contract documentation. Risk allocation and planning to avoid disputes. End cost budgeting, forecasting and control techniques.

Course: CN43

Prerequisites: CNB323, CNB319, CNB327, CNB313,

CNB214, CNB315, CNB321

Credit Points: 6

Contact Hours: 3 per week

■ CNB315 CONSTRUCTION BUSINESS MANAGEMENT

Accounting process to trial balance, preparation of end of period reports, accounting systems and data collection, accounting for cash, credit, fixed assets and payroll, final company accounts. Management versus financial, cash versus accruals accounting, profit versus taxable income. Factors impacting on profit and intangible assets, concepts of capitalised expenditure. Building plant depreciation. Cost coding and cash flow. Cost analysis and control, salary allocation and overheads. Accounting period ratios, balance sheet, impact on turnover. Statements of sources and application of funds, accounting report and sources of business funding.

Courses: CN41, CN43

Prerequisite: CNB220

Credit Points: 6

Contact Hours: 3 per week

■ CNB316 VALUATIONS & INVESTMENT THEORY

Nature of value; effect of supply and demand of land and buildings; investment value and occupational value; types of landed property, incidents of their tenure, outgoings and comparison with other forms of investment; rates of interest required from different types of property; calculating rental value and net income and capitalisation of net income; use of valuation tables; capital investment theory of NPV and IRR choice of discount rates, uncertainty and decision theory and financial cashflows.

Courses: CN41, CN43

Prerequisites: 2nd half of course

Credit Points: 6

Contact Hours: 3 per week

■ CNB317 CONSTRUCTION MANAGEMENT 2

Control and control systems, cost planning, cost reporting and forecasting, administration of the financial requirements of the head contract, preparation of cash flows. Purchasing (including tender preparation and the letting of subcontracts, placing of orders and subsequent administration of both). Project liquidity, working capital and turnover and general site administration. Insurances. Finalising subcontracts, archiving and final accounts. Overview of standard contracts and administration of variations, delays, time extensions and prolongation costs, progress claims etc. Contract drafting for sub and main contracts including contract specification. Principles and application of rise and fall.

Courses: CN41, CN43

Prerequisites: CNB220, CNB214

Corequisites: CNB313, CNB315, CNB323, CNB321
Credit Points: 6 **Contact Hours:** 3 per week

■ **CNB318 COMMERCIAL LAW**

Sale of goods. Hire purchase. Negotiable instruments. Insurance law. Partnership law, general principles of Company law. Bankruptcy and liquidation.

Courses: CN41, CN43

Prerequisites: CNB321, CNB214, CNB315

Credit Points: 6 **Contact Hours:** 2 per week

■ **CNB319 PROFESSIONAL MANAGEMENT**

The concepts of specifications complementing architectural documents; definitions, objectives of a specification; specification as a contract and working document; reference material and specification writing; use of master specifications; outright and performance specification writing; and preparation of specified bills of quantities. Introduction to computer specification software. Scale of fees and professional charges; code of ethics; letters of engagement; law involving the quantity surveyor and the client; professional indemnity; professional image and status; office management and procedures.

Course: CN43

Prerequisites: CNB212, CNB213, CNB223, CNB214

Corequisite: CNB321

Credit Points: 6 **Contact Hours:** 3 per week

■ **CNB320 BUILDING ECONOMICS 2**

Case studies covering the following fully worked examples: tax depreciation schedule on an office and a hotel; value management study of an office development; replacement insurance valuation both on office and retail development; elemental analysis of a number of commercial developments. Hands on experience, by students to use related computer software to calculate the above studies and analyses.

Course: CN43

Prerequisite: CNB327

Corequisite: CNB314

Credit Points: 6 **Contact Hours:** 3 per week

■ **CNB322 CONSTRUCTION MANAGEMENT CASE STUDY**

The students undertake client negotiations, sub-contractor negotiations, technical decisions, administration of contracts, report writing and the resolution of disputes.

Course: CN41

Prerequisite: CNB311

Corequisites: CNB200, CNB214

Credit Points: 6 **Contact Hours:** 3 per week

■ **CNB323 ESTIMATING 2**

The subject builds on the procedures covered in CNB222, Estimating 1 to assess the cost of more complex work and to introduce more advanced methods of pricing. The work includes deep basement excavation, foundations, concrete framing, suspended floors, steel erection, precast and prestressed concrete erection. Later lectures cover the preliminary items and the development of a tender submission from the base estimate. The problems of obtaining and assessing sub contract prices and the evaluation of variations are discussed, together with the consequences of unbalanced rates. The subject concludes with an introduction to the methods used to produce preliminary estimates from concepts and early designs. Demonstration of computer estimating software.

Courses: CN41, CN43

Prerequisites: CNB216, CNB212, CNB222

Credit Points: 6 **Contact Hours:** 2 per week

■ **CNB324 PROFESSIONAL STUDIES 3A**

The third-year project will deal mainly with Building Economics subjects. The project will be a low rise commercial building in the inner city area. The students will be provided with preliminary and working drawings and specification.

Course: CN43

Prerequisites: CNB224, CNB311, CNB313, CNB315, CNB319, CNB323, CNB327, CNB321

Corequisites: CNB312, CNB320, CNB314, CNB332, CNB316, CNB318

Credit Points: 9 **Contact Hours:** 3 per week

■ **CNB325 BUILDING ECONOMICS**

History of and need for cost control, comparisons between cost planning and approximate estimating. NPWC cost control system. Effects of height, shape and building efficiency upon cost and value. Functional requirements and cost implication of construction methods. Influence of site and market conditions and economics of prefabrication and industrialisation. Building cost data bases and indices, cost checking and analysis. Value management and life cycle costing. Introduction to tax depreciation and tax effective design.

Course: CN41

Prerequisites: CNB216, CNB118, CNB217, CNB218, CNB220

Corequisites: CNB323, CNB311

Credit Points: 6 **Contact Hours:** 2 per week

■ **CNB326 TIME MANAGEMENT 2**

Understanding of resources and their importance in the planning process. High-rise repetitive, production planning and the importance of material and resource handling in this process. Legal problems associated with CPM. Planning and control of various types of projects.

Course: CN41

Prerequisites: CNB313, CNB118, CNB217, CNB218, CNB317, CNB323

Credit Points: 8 **Contact Hours:** 4 per week

■ **CNB327 BUILDING ECONOMICS 1**

History and need for cost control, comparisons between cost planning and approximate estimating. NPWC cost control system. Effects of height, shape and building efficiency upon cost and value. Functional requirements and cost implication of construction methods. Influence of site and market conditions and economics of prefabrication and industrialisation. Building cost data bases and indices, cost checking and analysis. Value management and life cycle costing. Introduction to tax depreciation and tax effective design.

Course: CN43

Prerequisites: CNB216, CNB118, CNB217, CNB218, CNB311, CNB220

Corequisites: CNB323 CNB313

Credit Points: 6 **Contact Hours:** 2 per week

■ **CNB328 CONSTRUCTION MANAGEMENT 3**

Management principles: planning, goal setting, strategic, operational and tactical planning. Controlling: process, budgets, audits. Organising: organisational structures, job design, specialisation, departmentalisation. Developing company business plans, safety management plans and quality management plans with emphasis on the application of these planning techniques to the construction industry. Decision-making and problem-solving. Code of ethics, professional image, status and indemnity.

Course: CN41

Prerequisites: CNB317, CNB221

Corequisites: CNB326, CNB318, CNB322

Credit Points: 8 **Contact Hours:** 3 per week

■ **CNB329 BUILDING CONTRACTS AND ARBITRATION LAW**

Contents of building contracts and contract documents, with particular reference to and consideration of the major provision in Standard Forms of Building Contract; aspects covered include tenders, subcontractors, role of the architect, variations, time for completion and exten-

sion of time, claims and payments, determination and arbitration; arbitration: the agreement, comparison with actions at law, reference by consent, appointment of an arbitrator; conduct of an arbitration, powers and duties, rule of evidence, enforcement of an award, costs.

Courses: CN41, CN43

Prerequisite: CNB121, CNB226 **Corequisite:** CNB317
Credit Points: 6 **Contact Hours:** 3 per week

■ **CNB330 APPLIED COMPUTING 2**

Computer software programs which can be used in the construction and property development processes. The unit is designed to coordinate the practical aspects of the lecture material presented each semester so that students both develop essential practical skills and benefit from cross-fertilisation of the individual subjects. The programs reinforce the applied subjects which are taken in the course and may include software packages covering construction business management; construction administration and cost control; estimating, cost planning and billing, etc.

Course: CN41

Prerequisites: CNB315, CNB317, CNB323, CNB325

Corequisites: CNB328, CNB316

Credit Points: 6 **Contact Hours:** 3 per week

■ **CNB332 APPLIED COMPUTING 2A**

Computer applications for the preparation of bills of quantities using software packages; hands-on experience in setting up of base accounts, trades, headings; measurement input; editing, correction and data manipulation; report generation in various bill of quantities formats; pricing using estimated and/or tendered rates; elemental analyses; use of computer in measurement of non-traditional contractual systems; specification and preamble development.

Course: CN43

Prerequisites: CNB327, CNB319, CNB323, CNB216

Corequisites: CNB312, CNB316

Credit Points: 6 **Contact Hours:** 3 per week

■ **CNB334 PROFESSIONAL STUDIES 3**

The third year project will deal mainly with Building Economics and Management subjects. The project will be a high-rise building in the inner city area. The students will be provided with working drawings, specification, bills of quantities and contract conditions. Estimating and building economics: Prepare an estimate to erect the building. Carry out a bulk check and prepare a preliminary network to determine time related overheads and completion date for the tender. Submit tender. Prepare basic critical path network etc. and prepare cost plan for project.

Course: CN41

Prerequisites: CNB224, CNB311, CNB313, CNB315, CNB317, CNB321, CNB323, CNB325

Corequisites: CNB326, CNB322, CNB328, CNB330, CNB316, CNB318

Credit Points: 8 **Contact Hours:** 3 per week

■ **CNB341 BUILDING & CIVIL ENGINEERING CONSTRUCTION**

Large project bulk excavation, earth and rock retaining systems, rock excavation and explosive handling; dewatering, pile driving, bored pier and special foundation construction; demolition of structures; roadworks, techniques, stabilised construction, surface sealing and associated bridge construction; falsework and temporary works.

Courses: CN31, CN33

Prerequisite: CNB254

Credit Points: 4 **Contact Hours:** 2 per week

■ **CNB342 LAW 2 PRINCIPLES & PROPERTY**

Legal principles and process, the legal system and process; sources and divisions of the law; rules of precedence;

interpretation of statutes and regulations; legal practice and procedure; law of property, ownership and possession, estates and interests in land; easements, rights and restrictive covenants; party walls, boundary walls, fences and encroachments.

Courses: CN31, CN32, CN33

Credit Points: 3 **Contact Hours:** 1.5 per week

■ **CNB343 ECONOMICS OF THE CONSTRUCTION INDUSTRY**

Economics and applied economics; features of the macroeconomy; demand, supply, prices and stocks; market structures, competition, collusion, integration and concentration; real property markets, tenure, markets and sub-markets; construction and housing industries composition and characteristics; demand for dwellings, the deposit gap, public housing, rental markets; pricing mechanism, application to land, contract and speculative projects, etc.; cost analysis, cost components in housing, problems of rising costs and time delays; finance industries, types and use of finance, use of gearing, risk considerations, cash flow; failure of developer and builder firms.

Courses: CN31, CN33

Credit Points: 4 **Contact Hours:** 2 per week

■ **CNB347 HYGIENE & SANITATION**

A study of macro services to the community including water supply, sewerage, power, gas, telephone and other public services. Requirements of headworks and reticulations. A study of sanitation, septic tanks, absorption and transpiration beds, stormwater and sewerage disposal and garbage and refuse disposal. Hydraulic engineering services associated with buildings. Water supply (including fire fighting and hot water), sewerage and sanitary plumbing with a study of relevant Acts and laws, including sizing and testing of main and gravity-fed services.

Courses: CN31, CN33, PU42

Credit Points: 4 **Contact Hours:** 2 per week

■ **CNB362 PROPERTY AGENCY**

Characteristics of the Australian property market, the nature of the marketing problems. The marketing plan: the mix, implementation of plan and sales forecast; pricing decisions, approach to selling; consideration of sales particulars and auction catalogues. Promotional decisions: determination of budget size; media decision and sales promotion; technological advances and market changes. Real estate brokerage and the application of marketing principles to residential, commercial, industrial, special and overseas properties. Negotiation skills development.

Courses: CN32, PS47

Credit Points: 8 **Contact Hours:** 3 per week

■ **CNB363 VALUATION 3**

Valuation formula; time value concepts; investment approach, basic capitalisation and cash flow techniques. Assumptions. Practical applications of investment approach to suburban and CBD properties.

Course: CN32

Prerequisite: CNB268

Credit Points: 9 **Contact Hours:** 3 per week

■ **CNB364 VALUATION 4**

See CNB363.

Course: CN32

Prerequisite: CNB363

Credit Points: 8 **Contact Hours:** 3 per week

■ **CNB367 REAL ESTATE ACCOUNTING 1**

Financial accounting: period versus project income determination, inventory valuation and costs of goods sold, introduction of asset valuation theories, depreciation, intangible asset determination, effects of taxation. Analysis and interpretation of financial statements: multiple

factors in interpretation, analysis principles for business brokerage. Asset valuation: conventional bases for valuation, current cost, replacement cost general price level changes, effects in depreciation and taxation. Business structures: sole trader, partnerships, companies and appropriate accounting procedures. Business analysis and assessment of value for business brokerage. Project accounting, contracts, part-payments, interim project termination, development costs.

Courses: CN32, PS47

Credit Points: 9 **Contact Hours:** 3 per week

■ CNB368 REAL ESTATE ACCOUNTING 2

Budgeting and cost accounting, the production function, decision and control aspects of production, cost accounting, cost flows, cost types, cost classification, costing systems, standard costing and variance analysis, flexible budgets and budgetary control, performance and evaluation. Company finance: objectives of the finance function, use of financial indicators, debt equity sources of funds, financial versus capital structure, financial risk and gearing, cost of capital. Cash flow management: decision making using cash flow management techniques viz purchase versus lease, etc. Working capital management and short-term investment criteria. Capital budgeting for an ongoing business. Project sorting and budgeting.

Courses: CN32, PS47

Prerequisite: CNB367

Credit Points: 8 **Contact Hours:** 3 per week

■ CNB401 BUILDING ECONOMICS & COST PLANNING

Cost control building outputs and costs; comparison of cost planning and approximate estimating; cost implications of design variables, perimeter/floor area ratio, size of building, circulation space, storey height; cost, effects of site conditions, prefabrication and standardisation; approximate estimating, types and uses; measurement of variations, adjustment of prime costs and provisional sums; cost analyses, indices and data; applications and use of cost analyses; progress payments and final accounts.

Course: CN31

Prerequisites: CNB010, CNB013, CNB014, CNB254, CNB443, CNB444, CNB446, CNB540

Credit Points: 4 **Contact Hours:** 2 per week

■ CNB403 BUILDING MANAGEMENT 1

Management in principle, planning, leading, organising, controlling and applied communication; fundamentals of management; roles of policy maker and executive; accountability; problem solving; organisation structures and relationships, formal and informal structures; management in practice, building industry participants, client to builder; systems in the building industry; contract, and head office management of small and large contracts; management, job description, contracts, plant, estimating, purchasing, planning and accounting section; tenders and contracts; controlling incoming work, securing contracts.

Courses: CN31, CN33

Corequisite: CNB253

Credit Points: 4 **Contact Hours:** 2 per week

■ CNB404 BUILDING MANAGEMENT 2

More advanced management principles and their application to site administration and management.

Courses: CN31, CN33

Prerequisite: CNB403

Credit Points: 4 **Contact Hours:** 2 per week

■ CNB405 PROJECT EQUIPMENT & SAFETY

Construction Safety Act 1971-73 and regulations; fixed, mobile and portable equipment, hoarding, gantries, scaffolding; crane, hoist and other relevant code; responsibilities and certification of site operatives; safety prob-

lems in erection, demolition and excavation work; accident investigation, analysis and preventive techniques; frequency and severity rates and training, management responsibilities.

Course: CN31

Corequisite: CNB254

Credit Points: 4 **Contact Hours:** 2 per week

■ CNB411 DEVELOPMENT PROCESS 1

Development sectors covering commercial offices (high and low rise, CBD and suburban), retail (CBD, secondary, regional, strip and festival), industrial, infrastructure, short term accommodation and leisure (3-5 star hotels, integrated resorts, motels, golf courses and marinas). Residential land subdivisions both small (under 20 ha) and large, medium and high density housing including a systematic critique of AMCORD (Australian Model Code of Residential Development) and its effects on lot yields and service efficiencies. Development of building approval process, rezoning, political influences in the development process, changing social needs and the effects on development, feasibility studies, development budget control, taxation, development financing and the development process, legal development structures, marketing and selling, commissioning leading development teams, planning for client satisfaction and development sensitivities.

Courses: CN41, CN43

Prerequisites: CNB313, CNB316, CNB318, CNB315 CNB325, CNB311, CNB327, CNB321

Credit Points: 9 **Contact Hours:** 3 per week

■ CNB412 DEVELOPMENT PROCESS 2

Case studies on the following type of developments: CBD office, suburban office, hotels, integrated resorts, motels, golf courses, marinas, retail centres (CBD, regional, secondary, strip and festival), medium and high density housing, infrastructure and industrial, small and large residential subdivisions, retail and retirement villages.

Courses: CN41, CN43

Prerequisite: CNB411

Credit Points: 6 **Contact Hours:** 2 per week

■ CNB414 CIVIL ENGINEERING QUANTITIES

Introduction to the measurement of civil engineering works based on the study of the SMM of Civil Engineering Quantities. Detailed study of methods, plant, specification and measurement of: earthworks, (clearing, compaction and dredging); roadworks (survey, bulk excavation and filling, pavement construction, kerbing, culverts); and bridges (foundations, abutments, superstructure, approach embankments, safety structures). Study of dam construction (earthworks, storage volumes, etc.). A brief introduction to computer applications such as earthwork calculations, etc. An investigation into the method of measuring the quantity of materials involved in major industrial complexes such as: refinery and processing plant, including pipework, vessels, tanks, instrumentation, electrical, commissioning, scaffold, shutdown maintenance; pipelines, etc. Mining, plant and equipment, conveyors, processing plant etc; oil and gas, offshore platforms, fabrications, etc. Introduction to cost engineering and cost control on major engineering projects. Estimating procedures used for this type of construction.

Course: CN43

Prerequisite: CNB311

Credit Points: 12 **Contact Hours:** 4 per week

■ CNB415 CONTRACT ADMINISTRATION 2

Nominated sub-contractors and supplier; adjustment of PC and provisional sums; variations; rise and fall; progress claims and payments. Retentions and bank guarantees. Delays and extensions of time; prolongation costs and liquidated damages; practical completion; completion. Final certificate. Insurances.

Course: CN43 **Prerequisites:** CNB314, CNB318
Credit Points: 9 **Contact Hours:** 3 per week

■ **CNB416 CONSTRUCTION MANAGEMENT 4**
Basis of employment (common law and statutory), construction industry infrastructure, conciliation and arbitration, the awards, alternative systems, negotiation with unions, ancillary legislation (Workplace Health and Safety, Equal Employment Opportunity, etc.). Interpersonal skills, roles, expectations. Group interaction and dynamics, social motives and sources and resolution of conflict. Practical application of behavioural studies through case studies drawn from the building industry. Communications. Working with others. Team roles and work groups. Assertiveness, motivation.

Course: CN41 **Prerequisite:** CNB328
Credit Points: 12 **Contact Hours:** 4 per week

■ **CNB417 RESEARCH PROJECT 1**
This unit is linked with CNB418.

■ **CNB418 RESEARCH PROJECT 2**
History of building research; definition of research; Australian and international building research organisations; nature of the building industry and implications for research; financing research; future developments in building research; research management; research process. Development and presentation of a bibliographic report on any topic within the ambit of construction management.

Courses: CN41, CN43
Prerequisites: Final year subject
Credit Points: 12 **Contact Hours:** 4 per week

■ **CNB419 APPLIED COMPUTING 3**
Computer software programs which can be used in the construction and property development processes. The unit is designed to coordinate the practical aspects of the lecture material presented each semester so that students both develop essential practical skills and benefit from cross fertilisation of the individual subjects. The programs reinforce the applied subjects which are taken in year 3 of the full-time course and may include software packages covering: time and resource management; financial investment; project management.

Course: CN41
Prerequisites: CNB326, CNB328, CNB316
Corequisite: CNB411
Credit Points: 9 **Contact Hours:** 3 per week

■ **CNB421 ELECTIVE 1**
The student will chose elective units to extend and expand an area of knowledge or experience to develop in depth a particular professional expertise. These subjects may be drawn from any relevant Faculty within the QUT. The electives are to be approved by the Course Coordinator prior to enrolment.

Course: CN43 **Prerequisites:** Final year subjects
Credit Points: 9 **Contact Hours:** 3 per week

■ **CNB422 ELECTIVE 2**
The student will chose elective units to extend and expand an area of knowledge or experience to develop in depth a particular professional expertise. These subjects may be drawn from any relevant Faculty within the QUT. The electives are to be approved by the Course Coordinator prior to enrolment.

Course: CN43 **Prerequisites:** Final year subjects
Credit Points: 9 **Contact Hours:** 3 per week

■ **CNB431 ELECTIVE 1**
The student will chose elective units to extend and expand an area of knowledge or experience to develop in depth a particular professional expertise. These subjects may be drawn from any relevant Faculty within the QUT. The electives are to be approved by the Course Coordinator prior to enrolment.

Course: CN41 **Prerequisites:** Final year subjects
Credit Points: 9 **Contact Hours:** 3 per week

■ **CNB432 ELECTIVE 2**
The student will chose elective units to extend and expand an area of knowledge or experience to develop in depth a particular professional expertise. These subjects may be drawn from any relevant Faculty within the QUT. The electives are to be approved by the Course Coordinator prior to enrolment.

Course: CN41 **Prerequisites:** Final year subjects
Credit Points: 9 **Contact Hours:** 3 per week

■ **CNB440 LAW 3 BUILDING CONTRACTS**
Building and engineering agreements, practices relating to the building industry; contract law, elements, formation and discharge of a contract; contents of a valid contract, misrepresentation, collateral contract implied terms; contract documents and their interpretation; breach of contract; major provisions in Australian standard forms of building contract.

Courses: CN31, CN33 **Corequisite:** CNB404
Credit Points: 6 **Contact Hours:** 1 per week

■ **CNB442 VALUATION & DILAPIDATIONS**
Nature of value; effect of supply and demand of land and buildings; investment value and occupational value; types of landed property, incidents of their tenure, outgoings and comparison with other forms of investment; rates of interest required from different types of property; calculating rental value and net income and capitalisation of net income; use of valuation tables; liability for dilapidations; legal and equitable waste; implied, express contract covenants and statutory obligations to repair between landlord and tenant; landlords' remedies for breach of covenant to repair; liability for injuries to third parties.

Courses: CN31, CN33
Prerequisites: CNB013, CNB014
Credit Points: 6
Contact Hours: 2 per week in Semester 1, 1 per week in Semester 2

■ **CNB443 BUILDING SERVICES 3**
Transportation of people and goods; passenger, goods and service lifts; planning disposition, control systems and construction; regulatory requirements, approximate traffic calculations; escalators and moving walks, use, widths and ratings, regulatory requirements and construction; planning of lift contracts and ancillary building work; cost of lifts; fire protection, sprinklers, detectors, alarms, extinguishers; telephone and sound systems; intrusion alarm systems; clock and time systems; acoustics.

Courses: CN31, CN33
Prerequisites: CNB013, CNB014
Corequisite: CNB253
Credit Points: 5 **Contact Hours:** 2.5 per week

■ **CNB444 MECHANICAL & ELECTRICAL ESTIMATING**
Mechanical and electrical systems, parameters influencing their design and application; types estimates and tenders; preliminaries, trade awards and wage rates; take off procedures, costing and estimating make-up calculations; system costs in relation to total building, floor area, operating and maintenance cost, builders allowance for each system.

Courses: CN31, CN33
Prerequisites: CNB013, CNB014
Credit Points: 4 **Contact Hours:** 2 per week

■ **CNB446 ESTIMATING 1**
Building trades award and wages rates; hourly rate build

up for equipment and trade services; calculation of preliminaries for a small suburban project.

Courses: CN31, CN33

Prerequisites: CNB006, CNB253

Corequisite: CNB254

Credit Points: 5 **Contact Hours:** 2.5 per week

■ CNB451 COMPUTER SOFTWARE APPLICATIONS 1

Preparation of bills of quantities using computer software packages; hands-on experience in set-up of base accounts, trades, headings; measurement input; editing, correction and data manipulation; report generation in various bill of quantities formats; pricing using estimated and/or tendered rates; elemental analyses; computer measurement of contractual systems; specification and preamble development.

Course: CN33

Prerequisites: CNB010, CNB246, ISB180

Credit Points: 4 **Contact Hours:** 2 per week

■ CNB452 COMPUTER SOFTWARE APPLICATIONS 2

Cost plan/estimates using computer software packages, including set-up of base accounts, parameter specifications; elemental and detailed estimate measurement; editing, correction and data manipulation; report generation and formatting; development of labour constants, standard rates and items; pricing, tendering, spreadsheet application; contract administration, variation control, rise and fall of final accounts; progress payments; cash flow forecasts.

Course: CN33

Prerequisite: CNB647

Corequisite: CNB648

Credit Points: 4 **Contact Hours:** 2 per week

■ CNB461 MEASUREMENT OF CONSTRUCTION 5

Methods of taking off and billing quantities in complex basement and foundation work in the trades underpinning, excavator, concrete, piling systems, structural systems in suspended slabs and walls.

Course: CN33

Prerequisites: CNB010, CNB246, CNB254, CNB341

Credit Points: 3 **Contact Hours:** 1.5 per week

■ CNB462 MEASUREMENT OF CONSTRUCTION 6

Methods of taking off and billing quantities in the trades plumber and drainer.

Course: CN33

Prerequisite: CNB347

Credit Points: 3 **Contact Hours:** 1.5 per week

■ CNB464 VALUATION 5 RURAL

The physical and economic factors of rural land and its development, land utilisation and degradation, farm management and productivity, factors influencing rural valuations. Rural sales, valuation procedures and inspections. Practical assignments.

Course: CN32

Prerequisite: CNB268

Credit Points: 8 **Contact Hours:** 3 per week

■ CNB465 PROPERTY INVESTMENT ANALYSIS 1

Investment principles and strategy, property investment financing and evaluation, property investment market, time value of money concepts, cash flow techniques over time, application of CF techniques to property, feasibility studies, market analysis, risk analysis applied to property; the structure of detailed risk and return viability studies; portfolio theory applied to property; computer applications.

Courses: CN32, PS47

Prerequisites: CNB363, CNB667

Credit Points: 8 **Contact Hours:** 3 per week

■ CNB466 PROPERTY INVESTMENT ANALYSIS 2

See CNB465.

Course: CN32

Prerequisites: CNB363, CNB465, CNB667

Credit Points: 8 **Contact Hours:** 3 per week

■ CNB470 VALUATION 6 RURAL

See CNB464.

Course: CN32

Prerequisite: CNB464

Credit Points: 8 **Contact Hours:** 3 per week

■ CNB471 PROPERTY PRACTICE LAW

Legal concepts and statutory requirements relevant to the property professional; legislation governing property valuation and real estate practice; the effect of relevant statutes on real property; standard real property contracts; law of torts; negligence; arbitration.

Courses: CN32, CN81

Prerequisite: CNB342

Credit Points: 8 **Contact Hours:** 2.5 per week

■ CNB472 PROPERTY TAXATION ISSUES

The implications of taxation on the overall profitability of property investments and developments. The distinction between developer and investor, project funding, the interpretation of ordinary income and capital gains tax. Deductions for project expenditure, in particular interest, negative gearing, depreciation and building amortisation.

Courses: CN32, CN81

Prerequisite: CNB368

Credit Points: 8 **Contact Hours:** 2 per week

■ CNB501 BUILDING MANAGEMENT 3

Construction accounting methods and management of on and off-site financial transactions; construction industry accounting procedures, profit and balance sheets.

Courses: CN31, CN33

Credit Points: 4 **Contact Hours:** 2 per week

■ CNB502 BUILDING MANAGEMENT 4

Search and selection of construction projects; the discount rate cost of capital, return on investment; cash flows and contract mark-up; risk uncertainty and inflation in capital investment decisions; analysis and interpretation of financial statements; sources of funds and classifications; bidding theory and strategy; prescribed payments taxation system.

Courses: CN31, CN33

Prerequisites: CNB404, CNB501

Credit Points: 4 **Contact Hours:** 2 per week

■ CNB520 SPECIFICATIONS

Compilation of specifications complementing architectural documents; definitions, objects and purpose of a specification; specification as a contract legal and working document; reference material and specification writing; use of master specifications; outright and performance specifications and preparation of specified bills of quantities.

Course: CN33

Prerequisite: CNB254

Credit Points: 3 **Contact Hours:** 1.5 per week

■ CNB524 MEASUREMENT OF CONSTRUCTION 7

Methods of taking off and billing quantities in the trades of mechanical and electrical engineer, external works and preliminaries.

Course: CN33

Prerequisites: CNB013, CNB014

Credit Points: 4 **Contact Hours:** 2 per week

■ CNB526 POST-CONTRACT SERVICES 1

Method of adjustment of provisional items, rise and fall entitlements; preparing valuation certificates for progress payments; cost control techniques used during the construction period; review of applicable contractual clauses; quantity surveying practice, adjustment to the

contract sum for variations; feasibility studies; different types of contractual arrangement and selection of contractors.

Course: CN33 **Prerequisites:** CNB440, CNB540
Credit Points: 5 **Contact Hours:** 2.5 per week

■ **CNB527 PM2 QUANTITATIVE TECHNIQUES**

Operations research techniques applied to the construction industry; linear programming; transportation and assignment methods; dynamic programming, decision trees; descriptive and inductive statistical methods applied to the construction/development industry and research; frequency distributions, measures of central tendency, dispersion; probability of variance, correlation and regression, sampling.

Courses: CN31, CN33

Prerequisites: CNB403, CNB404

Credit Points: 3 **Contact Hours:** 1.5 per week

■ **CNB540 ESTIMATING 2**

Build up of typical rates for demolition, dewatering, piling, underpinning, shoring/formwork to columns, beams, walls and slab systems; reinforcement tying and fixing; concrete placing rates; precast erection; scaffolding, gantries, hoists and cranes, etc.; calculations of preliminaries for country and city projects.

Courses: CN31, CN33

Prerequisites: CNB009, CNB010, CNB246, CNB446

Credit Points: 5 **Contact Hours:** 2.5 per week

■ **CNB543 LAW 4 TORTS & ARBITRATIONS**

Law of tort, negligence, professional negligence, duty of care, liability, occupiers' liability, nuisance, fraud and conversion; arbitration, nature of and comparison with actions of law; reference by consent; the arbitration agreement, parties subject matter, appointment of arbitrators; conduct of an arbitration; powers and duties of an arbitrator; rules of evidence; validity of publication and enforcement of an award; costs.

Courses: CN31, CN33 **Prerequisite:** CNB440

Credit Points: 3 **Contact Hours:** 1.5 per week

■ **CNB545 PM3 CONSTRUCTION PLANNING TECHNIQUES 1**

Application of construction planning and control techniques; bar charts; critical path networks, arrow and precedence diagrams; updating control and reporting techniques; line of balance.

Courses: CN31, CN33

Prerequisites: CNB246, CNB254, CNB404, CNB446

Corequisite: CNB540

Credit Points: 7 **Contact Hours:** 3.5 per week

■ **CNB548 PM4 CONSTRUCTION PLANNING TECHNIQUES 2**

Resource management; basic and production planning techniques; planning and control for various types of projects; misuse and abuse of planning and legal problems associated with CPM.

Course: CN31

Prerequisites: CNB013, CNB014, CNB545

Credit Points: 8 **Contact Hours:** 4 per week

■ **CNB550 PM5 PROJECT COST CONTROL**

Financial planning and cost control of the construction project; the development time relationships, cost consequences of design decision; preconstruction budget, budget management, materials control; performance analysis; trend evaluation; forecasting techniques, progress reports, cost reports; financial status reports; computer applications in expenditure; equipment policy, equipment economics, maintenance management; contract administration, processing payments, negotiating extensions and prolongation claims, rise and fall, prescribed payments.

Course: CN31

Prerequisites: CNB403, CNB404, CNB501

Credit Points: 6 **Contact Hours:** 3 per week

■ **CNB552 OFFICE MANAGEMENT**

Scale of fees and professional charges; code of ethics; letters of engagement; law involving the quantity surveyor and client, professional indemnity; image and status; office management and procedures.

Course: CN33

Credit Points: 2 **Contact Hours:** 1 per week

■ **CNB561 PROPERTY MAINTENANCE**

Technological, legal and financial factors in property maintenance, including taxation issues; the nature and importance of building maintenance; concept of building maintenance, liability for defects; capital, maintenance and running costs; quality control; government policy; planning of maintenance including inspections, long and short term; maintenance policies, cycles and profits, maintenance audits, maintenance manuals; building stock age and conditions, statistics; maintenance standards: application, attitude, quality control, responsibility; statutory requirements: Building Act, defective premises, Factories Act, fire precautions, health and safety; cost control: estimates and budgets, performance measures; life cycle costing.

Course: CN32

Prerequisite: CNB261

Credit Points: 8 **Contact Hours:** 3 per week

■ **CNB563 STATUTORY VALUATION**

Capital taxation as it affects property transactions. Valuations for: tax and taxation of capital gains; for statutory rating purposes under relevant legislation appeals procedure; for compulsory acquisition; assessment of compensation resulting from acquisition, resumption and damage. Evidence; the expert witness and professional liability; mock court.

Course: CN32

Prerequisites: CNB363, CNB364

Credit Points: 8 **Contact Hours:** 3 per week

■ **CNB564 VALUATION 7**

Valuation of specialist-type properties including licensed premises, hotels, service stations, entertainment and public properties. The valuation of corporate assets for organisational and balance sheet purposes. The future role of the valuer.

Courses: CN32, CN81

Credit Points: 8 **Contact Hours:** 3 per week

■ **CNB565 LAND MANAGEMENT**

Land resource management, ecology, regional land systems, coastal and riverine development issues; environmental degradation, land contamination; heritage values and management.

Courses: CN32, PS47

Credit Points: 8 **Contact Hours:** 3 per week

■ **CNB567 REAL ESTATE MARKET ANALYSIS**

Review of theory of price, and applied economics of markets: determinants and conditions of supply and demand, market equilibrium, competition, economic cycles. Real property markets, identification of submarkets: Residential and non-residential markets. Significance of tenure. Impact of government policies, sources of data; analysis of ABS data. Applied studies of nominated submarkets. Market analysis techniques, trends and studies: local, national and overseas. Future trends.

Courses: CN32, PS47

Credit Points: 4 **Contact Hours:** 2 per week

■ **CNB568 REAL ESTATE PRACTICE**

Management concepts in real estate; a business plan; office administration: staff recruitment and training; trust accounts; a composite real estate practice.

Courses: CN32, CN81, PS47
Credit Points: 5 Contact Hours: 2.5 per week

■ **CNB601 FORMWORK DESIGN & CONSTRUCTION**

Formwork building, quality, safety, control; formwork planning, re-use, materials and hardware; cost hire or buy; erecting and stripping; scheduling, loads and pressures on slab, beams, column and wall forms; form design and design tables; formwork drawing and detailing; building and erecting formwork, architectural forms, precast concrete; special techniques and pre-stressing; propriety formwork systems, simple falsework design.
Courses: CN31, CN81 Prerequisite: CNB146
Corequisite: CNB253
Credit Points: 4 Contact Hours: 2 per week

■ **CNB603 BUILDING MANAGEMENT 5**

The construction labor market, supply and demand, awards, conditions and earnings differentials; role of the construction trade unions and negotiations between employer and unions; construction conciliation and arbitration systems; strikes and lockouts; workers compensation acts and regulations, etc.
Courses: CN31, CN33
Credit Points: 4 Contact Hours: 2 per week

■ **CNB606 PM8 LAND DEVELOPMENT STUDIES**

The structure, operation and control of the land development industry including the politico-economic framework; land use plans and approval mechanisms of subdivisible land; financial aspect of development projects, trends and prospects in the housing development industry.
Course: CN31 Prerequisite: CNB623
Coerequisite: CNB624
Credit Points: 4 Contact Hours: 2 per week

■ **CNB623 PM6 BUILDING DEVELOPMENT TECHNIQUES 1**

Feasibility, market and location surveys; cost analysis; evaluation techniques, conventional and discounting; cash flows and sensitivity analysis; authorities, development restrictions, services; profitability, commercial assessment, land values, options; purchase, terms, legal documentation, consolidation, surveys; commissioning design team, building use, facilities, quality, staging; instruct consultants, analyse alternatives, value engineering, marketability, income and outgoings; cost and time control from sketch design to completion; tender procedures and negotiations, contract documentation; leasing, brochures, publicity, letting agents, targets; authorisation of payments, monthly reports, coordination meetings; financing projects and cash flow.
Courses: CN31, CN33
Prerequisites: CNB301, CNB343, CNB401, CNB502, CNB540, CNB545, CNB550
Credit Points: 4 Contact Hours: 2 per week

■ **CNB624 PM7 BUILDING DEVELOPMENT TECHNIQUES 2**

See CNB623.
Courses: CN31, CN32, CN33 Prerequisite: CNB623
Credit Points: 4 Contact Hours: 2 per week

■ **CNB626 LAND DEVELOPMENT STUDIES**

See CNB606.
Courses: CN32, CN81
Corequisite: CNB623
Credit Points: 4 Contact Hours: 2 per week

■ **CNB642 APPLIED COMPUTER TECHNIQUES**

Evaluation of a range of commercial computer programs designed for the construction industry.

Course: CN31 Prerequisite: CNB548, CNB550
Credit Points: 6 Contact Hours: 3 per week

■ **CNB643 LAW 5 COMMERCIAL LAW**

The law as it affects the construction industry; sale of goods, hire purchase; negotiable instruments; insurance law; partnership law and general principles of company law; bankruptcy and liquidation.
Courses: CN31, CN32, CN33
Prerequisites: CNB404, CNB502
Credit Points: 3 Contact Hours: 1.5 per week

■ **CNB647 COST PLANNING & COST CONTROL 1**

The significance of construction economics for the client, the professions, the industry and society; historical development, need for and main aims of cost control; comparing cost planning and approximate estimating; cost implication of design variable, shape, size, perimeter, storey height; cost implications of construction methods of site and market conditions, or prefabrication and industrialisation; types of approximate estimates; cost analyses, indices and data; cost in use, maintenance and running costs, the life of buildings and components; taxation and insurance.
Course: CN33
Prerequisites: CNB005, CNB006, CNB009, CNB010, CNB446, CNB461, CNB462, CNB524, CNB540
Credit Points: 4 Contact Hours: 2 per week

■ **CNB648 COST PLANNING & COST CONTROL 2**

Continuation of CNB647.
Course: CN33 Prerequisite: CNB647
Corequisite: CNB452
Credit Points: 4 Contact Hours: 2 per week

■ **CNB653 POST-CONTRACT SERVICES 2**

Continuation of CNB526.
Course: CN33 Prerequisite: CNB526
Credit Points: 5 Contact Hours: 2.5 per week

■ **CNB656 BUILDING RESEARCH**

History of building research; definition of research; Australian and international building research organisations; nature of the building industry and implications for research; financing research; future developments in building research; research management; research process; development and presentation of a bibliographic report.
Courses: CN31, CN33 Prerequisites: Final year
Credit Points: 18 Contact Hours: 4.5 per week

■ **CNB661 RESEARCH DISSERTATION 1**

Develop an ability to disseminate and evaluate information and specialised knowledge and acquire an understanding of research methodology. Encompasses the definition, history, financing, future prospects and management of research. Students select a research subject, test its workability, develop procedures, prepare an outline for the study, draft the preliminary section and, after a series of critiques, present a bibliographic report, prepare a case study or project based upon an unusual or complex process within a relevant professional area, prepare a report and give an oral presentation.
Course: CN32
Credit Points: 8 Contact Hours: 4 per week

■ **CNB662 RESEARCH DISSERTATION 2**

See CNB661.
Course: CN32 Prerequisite: CNB661
Credit Points: 8 Contact Hours: 4 per week

■ **CNB663 PROPERTY DEVELOPMENT 1**

An overview of the project development process from inception to occupancy as a prelude to detailed study of discrete parts of the process. See CNB623 /4.

Course: CN32 **Prerequisite:** CNB626
Credit Points: 5 **Contact Hours:** 2 per week

■ **CNB664 PROPERTY DEVELOPMENT 2**

See CNB663.

Course: CN32 **Prerequisite:** CNB663
Credit Points: 6 **Contact Hours:** 2 per week

■ **CNB665 PROPERTY MANAGEMENT 1**

The role and importance of property management. The legal and physical parameters governing the establishment, holding, use and income generation of property assets. Theoretical and practical knowledge of the operation of components of property management. The management of residential, retail, industrial and commercial buildings. Main statutory provisions relating to above tenancies. Tenancy agreements, management records and accounts. Insurance. Cash flow and credit control.

Courses: CN32, PS47
Credit Points: 9 **Contact Hours:** 3 per week

■ **CNB666 PROPERTY MANAGEMENT 2**

See CNB665.

Courses: CN32, PS47 **Prerequisite:** CNB665
Credit Points: 8 **Contact Hours:** 3 per week

■ **CNB667 APPLIED COMPUTER TECHNIQUES**

Designed to give students hands-on experience and to demonstrate contemporary commercial software. On completion, students should be able to evaluate a range of commercial and non-commercial computer programs designed for the property development and construction industry. Covers accounting and cost control packages; feasibility studies; maintenance packages; CPM, network analysis techniques.

Course: CN32 **Prerequisite:** CNB363
Credit Points: 8 **Contact Hours:** 3 per week

■ **CNN441 DISSERTATION**

See CNN442.

Courses: CN77 **Credit Points:** 48

■ **CNN442 DISSERTATION**

The dissertation may be of a research or investigative nature on any approved area related to project management or property development. Suitable topics will be discussed and arranged with students each year. Each student will need to negotiate a suitable topic with a supervisor and will be examined by means of a dissertation by that supervisor and the unit moderator. Incorporates IFN001 Advanced Information Retrieval Skills which must be taken.

Courses: CN77 **Credit Points:** 48

■ **CNP400 MANAGEMENT OF TECHNOLOGY**

Introduces key concepts in management of technology and shows how these can be implemented. Furthers the understanding of the role of technology and its efficient management to build and maintain a competitive edge in business. Management of technology links engineering, science and management principles to identify, choose and implement the most effective means of attaining compatibility between internal skills and resources of an organisation and its competitive, economic and social environment. Course covers: technology and competitive advantage, technological trends and forecasting, acquisition of technology, and managing the technical function.

Courses: CN64, CN77, CN81
Credit Points: 6 **Contact Hours:** 2 per week

■ **CNP401 MANAGEMENT OF TECHNOLOGY FOR COMPETITIVE ADVANTAGE**

Introduces key concepts in management of technology and shows how these can be implemented. Furthers the

understanding of the role of technology and its efficient management to build and maintain a competitive edge in business. Management of technology links engineering, science and management principles to identify, choose and implement the most effective means of attaining compatibility between internal skills and resources of an organisation and its competitive, economic and social environment. Course covers technology and competitive advantage, technological trends and forecasting, acquisition of technology and managing the technical function. Advanced use of industry case studies and assignments.

Course: BS81
Credit Points: 12 **Contact Hours:** 2.5 per week

■ **CNP402 PRINCIPLES OF VALUATION**

Basic concepts and principles of real property value. Definitions of value. Process and methods used in property valuation. Ethics factors influencing accuracy of valuations. The comparative approach. Valuations of vacant land and residential property. Valuation inspection and reports. Practical valuation assignments. Summation. Investment valuation; rental value, outgoings.

Courses: CN64, CN77, CN81
Credit Points: 6 **Contact Hours:** 2 per week

■ **CNP403 PROPERTY MAINTENANCE & ASSET MANAGEMENT**

Technological, legal and financial factors in property maintenance, including taxation issues; the nature and importance of building maintenance: concept of building maintenance, liability for defects; capital, maintenance and running costs; quality control; government policy; planning of maintenance including inspections, long and short term; maintenance policies, cycles and profits, maintenance audits, maintenance manuals; building stock age and conditions, statistics; maintenance standards: application, attitude, quality control, responsibility; statutory requirements: Building Act, defective premises, Factories Act, fire precautions, health and safety; cost control: estimates and budgets, performance measures; life cycle costing.

Courses: CN64, CN77, CN81
Credit Points: 6 **Contact Hours:** 2 per week

■ **CNP404 ADVANCED LAND DEVELOPMENT**

The structure, operation and control of the land development industry including the politico-economic framework; land use plans and approval mechanisms of subdivisible land; financial aspect of development projects, trends and prospects in the housing development industry. Advanced assessment.

Courses: CN64, CN77, CN81
Credit Points: 6 **Contact Hours:** 2 per week

■ **CNP406 INTERNATIONAL PROJECT MANAGEMENT**

Examines international trends in project management from the perspective of the Australian project manager. Compares technical, managerial, economic and cultural concepts and issues related to project management in the global marketplace. Discusses emerging opportunities and misconceptions, with particular reference to the Asia-Pacific region. Provides the opportunity for international and local students to exchange ideas through the use of applied case studies and discussion groups. Lectures supported by a series of specialist industry lecturers.

Courses: CN64, CN77, CN81
Credit Points: 6 **Contact Hours:** 2 per week

■ **CNP417 DESIGN MANAGEMENT**

The nature of design and the factors which influence the process of design. It includes planning, managing and controlling the design process from inception to detailed

documentation; decision sequences in design; appreciation of the consequence of design decisions on the total project; the inter-relationships between architectural design and engineering and service design requirements; briefing techniques.

Courses: CN64, CN77, CN81

Credit Points: 6 Contact Hours: 2 per week

■ **CNP422 SPECIALIST VALUATIONS**

Theory of value, valuation types and approaches, practical approaches to the following valuation types: rating, compensation for compulsory purchase, investment, own-use, property assets, portfolios, public and specialist properties. Assessment of potential.

Courses: CN64, CN77, CN81

Credit Points: 6 Contact Hours: 2 per week

■ **CNP426 PROJECT DEVELOPMENT**

Site selection and acquisition; securing the land; authority negotiation and approvals; authority approvals; resource planning; acquisition/procurement; project coordination; construction management; commissioning and occupation; property management; project finalisation; post control evaluations; project management objectives of cost time and quality; process overview; project stages; management principles; feasibility/justification; preliminary brief; development objective, motivation and needs; feasibility studies; project feasibility/justification; finance for projects; marketing.

Courses: CN64, CN77, CN81

Credit Points: 12 Contact Hours: 2 per week

■ **CNP429 COST MANAGEMENT & ECONOMICS**

Financial statements; investment decisions; economic evaluation; financing decisions; life cycle costing; control systems; management accounting and reporting; information systems; cost planning theories and techniques; the economy.

Courses: CN64, CN77, CN81

Credit Points: 6 Contact Hours: 2 per week

■ **CNP430 CURRENT ISSUES**

The unit is very much an integrative study area. There are two main strands: the integration, under the project management umbrella, of areas already studied; and the integration of recent and topical developments in the area of project management. Areas may include: quality management, case studies, computer applications and selection, technology, simulation exercises (Arousal, Bicep), recent developments, change management, ethics, panel discussions, research presentations. Some of these topics will be covered by guest speakers from industry or presented in seminars.

Courses: CN64, CN77, CN81

Credit Points: 12 Contact Hours: 2 per week

■ **CNP431 PROJECT MANAGEMENT**

Introduction to theory of project management in the areas of communication, management and organisation as it applies to the project situation. Communication: process, skills, environment, applications; management theory and organisation theory. Negotiation. Project team building. Motivation theory. Construction and project leadership. Change. Strategic management and planning. Personnel. Decision-making strategies. Stress management. A series of case studies will be used to integrate the issues.

Courses: CN64, CN77, CN81

Credit Points: 12 Contact Hours: 2 per week

■ **CNP433 PROJECT MANAGEMENT LAW**

Introduction to the legal system; contract law; elements of contract; contents of valid contract; legal issues and problems associated with project management contracts;

arbitration; property law; international law; planning law.
Courses: CN64, CN77, CN81

Credit Points: 12 Contact Hours: 2 per week

■ **CNP434 TIME MANAGEMENT**

Use of planning techniques for project control; effective planning; PERT; CPM; bar charts and line of balance; arrow networks; precedence networks; time and cost control; resource control and levelling; computer software; control and reporting techniques. Emphasis is on the development of practical skills, based on established theory, immediately applicable to the project management or development industry

Courses: CN64, CN77, CN81

Credit Points: 6 Contact Hours: 2 per week

■ **CNP437 FIELD TRIP**

An experiential field trip in an adventure-style environment. The emphasis is on team building, working in a stressful environment, communication skills, personal discovery and extension and building trust and relationships. The activities will be oriented to achieving greater awareness of and competence in the above areas. Students are required to contribute towards the cost of this externally offered unit.

Courses: CN64, CN77, CB81

Credit Points: 6 Contact Hours: 4 days

■ **CNP438 REAL ESTATE INVESTMENT ANALYSIS**

Investment principles, characteristics, goals and strategies; investment alternatives, property investments and evaluation techniques; current property investment market in Australia; basic risk and return measures and financing; time value of money concepts, PV, FV, PMT, and dual rates; cashflow models and partial interests; NPVs and IRRs and their applications; cash flow assumptions and rates of return; practical cash flow applications and spreadsheets; financial feasibility study models; tax issues related to property investment; property type selection.

Courses: CN64, CN77, CN81

Credit Points: 6 Contact Hours: 2 per week

■ **CNP439 PROPERTY MANAGEMENT**

The motivation, instrumentation and application of property management for commercial and industrial real estate, including lease construction, rental valuations, rent review, review types, budgeting, outgoings and physical management. Trends and prospects.

Courses: CN64, CN77, CN81, PS69

Credit Points: 6 Contact Hours: 2 per week

■ **CNP667 APPLIED COMPUTING**

The application of computer programs in the financial and physical management process of property development, project management and investment.

Courses: CN64, CN77, CN81 Prerequisite: CNB363

Credit Points: 6 Contact Hours: 2 per week

■ **COB001 COMMUNICATION SKILLS I**

A course in English language skills for organising, writing and presenting in Australian academic contexts. Students gain practical experience in writing and presenting reports and seminars as well as essays, letters, memos. Special emphasis is given to clear appropriate expression, logical organisation and relevant content.

Prerequisites: IELTS of 6.0 but not more than 6.5 or equivalent

Credit Points: 12 Contact Hours: 3 per week

■ **COB002 PROFESSIONAL COMMUNICATION**

Communicating successfully orally and in writing in professional situations. An understanding of the concepts and skills required for effective formal reporting and

persuasive writing, oral reporting and persuasive speaking, group decision making and meeting procedures, leadership and participation.

Credit Points: 6 **Contact Hours:** 2 per week

■ **COB003 PROFESSIONAL WRITING**

The principles of, and strategies for, writing effective technical documents. Practical understanding of written language: organising ideas, and presenting those ideas in a cohesive text using generic features appropriate to the technical professions.

Courses: BS30, AR48, AR41, SV34

Credit Points: 6 **Contact Hours:** 1.5 per week

■ **COB004 PROFESSIONAL WRITING AND LEARNING AT UNIVERSITY**

The principles of, and strategies for, writing effective technical documents. Practical understanding of written language, organising ideas, presenting ideas cohesively using appropriate generic features. Developing effective learning strategies. Planning and controlling knowledge acquisition effectively.

Courses: CN41, CN31, CN32, CN33, CN43

Credit Points: 8 **Contact Hours:** 3 per week

■ **COB005 TECHNICAL AND SCIENTIFIC WRITING**

The development of writing skills for scientists and technological professionals, based on a practical and theoretical understanding of scientific and technical discourse.

Credit Points: 12 **Contact Hours:** 3 per week

■ **COB006 COMMUNICATION SKILLS II**

Principles and strategies that enable students who have reached an English Language level equivalent to IELTS 6.5 to cope with the rhetorical demands of academic written and spoken communication within the university culture.

Prerequisites: IELTS 6.5 or equivalent

Credit Points: 12 **Contact Hours:** 3 per week

■ **COB007 INTERPERSONAL COMMUNICATION**

The principles of, and strategies for, effective interpersonal communication.

Courses: ME35, PU48

Credit Points: 8 **Contact Hours:** 2 per week

Incompatible with: COB164

■ **COB170 BUSINESS COMMUNICATION**

The way in which electronic production and transmission is complementing traditional methods of communication in organisations.

Course: ED50

Credit Points: 12 **Contact Hours:** 3 per week

■ **COB171 COMMUNICATION TECHNOLOGY**

Concepts and applications of communication technology which impact on information processing and communication in organisations.

Course: ED50

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: COB118

■ **COB172 RECORDS MANAGEMENT**

The paper-based and electronic records and information systems operating within and between organisations; the impact that changes in communication technology have had on these systems.

Course: ED50

Credit Points: 12 **Contact Hours:** 3 per week

■ **COB173 TEXT FORMATTING**

The use of technology for document preparation, analysis of underlying principles of skills acquisition, traditional and technological perspectives on: document design, document formatting, business correspondence, tabu-

lation, financial statements, business forms, document formatting for specialised businesses and transcription.

Course: ED50

Credit Points: 12 **Contact Hours:** 3 per week

■ **COB200 BUSINESS COMMUNICATION AND TECHNOLOGY**

Extends the professional education of teachers of Secondary Studies and provides an opportunity to broaden knowledge of concepts and application of technology, its impact on functions, procedures and supervisory practices in organisations.

Course: ED26

Credit Points: 12 **Contact Hours:** 3 per week

■ **COB201 COMMUNICATION FOR DIVERSITY: GENDER AND ETHNICITY IN THE WORKPLACE**

This unit focuses on issues of gender and ethnicity in the workplace. Students examine the cultural context of the Australian workplace so that they can identify barriers to effective communication for working in and managing a diverse workforce. By analysing barriers and conditions which impinge on full participation of women in the workforce, and on people of different cultural backgrounds, they are encouraged to develop effective communicative strategies to deal with difference. Using the concept of diversity as a stepping off point, the subject will also focus on managing effective intercultural communication.

Courses: BS50, BS56

Prerequisites: BSB115 or 96 credit points of approved prior study

Credit Points: 12 **Contact Hours:** 3 per week

■ **COB203 COMMUNICATION RESEARCH METHODS**

The research methods dealt with include observation, group discussions, experimental studies, qualitative research and survey research. Special applications for communications research are considered and ethical issues discussed. Students will carry out projects using some of these methods, carry out elementary statistical procedures, analyse the results, and present their conclusions.

Courses: BS50, BS56 **Prerequisites:** COB216

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: COB159, MKB112

■ **COB204 COMMUNICATION TECHNOLOGY FOR ORGANISATIONS**

The unit examines the process of adoption and implementation of new communication technologies within national and international business organisations. In particular, students will examine the role of the new communication technologies in managing and changing communication relationships within and between organisations.

Courses: BS50, BS56 **Prerequisites:** BSB112

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: COB123, COB209, COB118, COB204

■ **COB205 GROUP COMMUNICATION: THEORY AND PRACTICE**

This unit offers exploration and practice in interpersonal and communication skills such as listening, assertion and negotiation. Business and media interviewing and small group communication in organisational settings provide the focus for study. Interpersonal and group communication theory is a theoretical base for analysing communication performance. Students practise problem-solving strategies by rehearsing vocational situations.

Courses: BS50, BS56

Credit Points: 12 **Contact Hours:** 3 per week

■ **COB206 INDEPENDENT STUDY**

An opportunity for advanced level undergraduate stu-

dents to undertake individual research in an area which is complementary to their course work.

Courses: BS50, BS56

Credit Points: 12 **Contact Hours:** 3 per week

■ **COB207 INTEGRATED MARKETING COMMUNICATION**

In past decades many marketers separated the various marketing and promotional functions. They planned and managed them separately with separate budgets, separate goals and objectives, and separate views of the market. Today many companies recognise the concept of integrated marketing communications which coordinates the various promotional elements along with other marketing activities that communicate with customers. Integrated marketing communications requires a 'total' approach to planning marketing and promotion programs and coordinating communication functions.

Courses: BS50, BS56

Credit Points: 12 **Contact Hours:** 3 per week

■ **COB208 INTERCULTURAL COMMUNICATION AND DIVERSITY**

This unit introduces the student to intercultural communication and diversity issues. It shows how enhanced appreciation and sensitivity to these issues can help an organisation improve morale, profitability and productivity. It relates the consequences to economic and global issues. The unit shows how the individual can appreciate differences and even find a career in the specialty that cuts across organisations, countries and cultures.

Courses: BS50, BS56

Prerequisites: BSB115 and BSB114 or 96 credit points of approved prior study

Credit Points: 12 **Contact Hours:** 3 per week

■ **COB209 ISSUES IN COMMUNICATION TECHNOLOGY**

The impact of communication technology on work structures and job design; the social issues resulting from its adoption and implementation.

Courses: ED50

Credit Points: 12 **Contact Hours:** 3 per week

■ **COB211 MASTERING THE INFORMATION ENVIRONMENT**

This unit introduces students to the central importance of information-gathering and information-processing behaviours in business settings. Grounded in social psychological theory, the subject encourages students to develop understanding and critical insights concerning their own information gathering-processing behaviours. Also addressed are information-gathering and processing behaviours as key coping strategies as individuals interact, and seek control over, their business and social environments. The particular information needs of business in emergent electronic environments are also addressed.

Courses: BS50, BS56

Prerequisites: BSB112 or 96 credit points of approved prior study

Credit Points: 12 **Contact Hours:** 3 per week

■ **COB212 OFFICE PROCEDURES**

Communication technology and its impact on functions and operational procedures in offices.

Courses: ED50

Credit Points: 12 **Contact Hours:** 3 per week

■ **COB213 STRATEGIC SPEECH COMMUNICATION**

This unit is based in rhetorical and group communication theory and informed by a knowledge of semiotics, specifically the way sign systems both create and interpret social meaning. Through these theories it introduces students to a fuller understanding of the verbal and non-

verbal languages of communication. Theory and practice are interrelated to develop understanding and self-reflexivity within students concerning their own communication skills. This approach has the intention of guiding them to become effective persuaders, opinion leaders, and facilitators of both creative problem-solving and conflict management in groups within the workplace.

Courses: BS50, BS56

Prerequisites: BSB117 or 48 credit points of approved prior study

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: COB134

■ **COB214 SUPERVISED PROJECT**

An individual research project investigating an approved aspect of communication technology.

Courses: ED50

Credit Points: 12 **Contact Hours:** 3 per week

■ **COB215 SUPERVISION AND ADMINISTRATION**

The impact of technological change on the supervision and administrative practices as they relate to communication processes in organisations; the role and duties of supervisory and administrative personnel in information processing; the impact of the technology on these roles and duties.

Course: ED50

Credit Points: 12 **Contact Hours:** 3 per week

■ **COB216 THEORETICAL PERSPECTIVES ON COMMUNICATION**

This course surveys the intellectual foundations of the communication discipline and provides an introduction to sophisticated and systematic explanations of communication and its consequences. Applications to the problems and opportunities encountered in the areas of organisational communication, public relations and advertising will be stressed.

Courses: BS50, BS56

Prerequisites: BSB115, BSB114

Credit Points: 12 **Contact Hours:** 3 per week

■ **COB217 WRITING FOR THE COMMUNICATION PROFESSIONS**

This unit grounds students in the key components of formal English grammar in order to enhance their understanding of writing at the word, sentence and paragraph level. The unit builds on students' intuitive understanding of how words work and equips them to work as writers and editors with a command of language structure and style.

Courses: BS50, BS56

Prerequisites: BSB117 or 48 credit points of approved prior study

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: COB138

■ **COB300 ADVANCED ADVERTISING**

An expansion and addition of theoretical perspective and skills gained in the prerequisite units. There is heavy emphasis on application of these perspectives to solving advanced advertising problems and the use of both basic and advanced skills in these solutions.

Courses: BS50, BS56

Prerequisites: COB308 and COB305 or COB317

Credit Points: 12 **Contact Hours:** 3 per week

■ **COB301 ADVANCED COMMUNICATION PRACTICE**

This unit will draw on a broad range of theories of communication which have informed student development to this point. This knowledge can be used as background for student projects which are relevant to public relations, advertising and organisational communication. The theo-

rics of rhetoric, semiotics, group dynamics and interpersonal communication will be foregrounded as those theories which particularly contribute to an understanding which develops expertise in the speech presentation area.

Courses: BS50, BS56

Prerequisites: COB213 or 96 credit points of approved prior study

Credit Points: 12 **Contact Hours:** 3 per week

■ COB302 ADVANCED INTEGRATED MARKETING COMMUNICATION

The unit develops the theoretical basis of integrated marketing communication in an applied framework. Students develop integrated marketing communications plans for real organisations and present these plans with recommendations for implementation.

Courses: BS50, BS56

Credit Points: 12 **Contact Hours:** 3 per week

■ COB303 ADVERTISING CAMPAIGNS

Students will be briefed to prepare and document three advertising campaigns. The subjects of these campaigns will be drawn from actual industry marketing situations.

Courses: BS50, BS56

Prerequisites: COB306, COB304

Credit Points: 12 **Contact Hours:** 3 per week

■ COB304 ADVERTISING COPYWRITING

This unit is an important base for further study in advertising. Students are introduced to the principles, theory, and practice relating to the creation of advertisements. The role of the copywriter in the advertising process is examined as is the relationship between copy and art. Practical work involves the writing, setting and presentation of copy for print advertising for manufacturers, service industries and the retail sector. Case briefs for assignments are presented to students by advertisers or advertising agency executives. Finished presentations are then made to these specialists.

Courses: BS50, BS56

Prerequisites: COB308, COB217

Credit Points: 12 **Contact Hours:** 3 per week

■ COB305 ADVERTISING COPYWRITING – ELECTRONIC

The unit consists of a series of lectures, tutorials, and practical assignments designed to develop appreciation of the specific theoretical and production factors concerning advertising copywriting involved in television, radio and industry related to audio visual presentations.

Courses: BS50, BS56

Prerequisite: COB304

Credit Points: 12 **Contact Hours:** 3 per week

■ COB306 ADVERTISING MANAGEMENT

The purpose of this unit is to provide the students with an understanding of the managerial side of the advertising profession and to equip them with the tools they need to make executive decisions in advertising. Students will examine the process of setting appropriate advertising objectives, designing a program of advertising research, the social environment and regulation of advertising, managerial participation in the creative and media planning process, account management in an advertising agency, client-company management and the advertising process, completing theoretical concepts of 'how advertising works'.

Courses: BS50, BS56

Prerequisites: COB308, COB203

Credit Points: 12 **Contact Hours:** 3 per week

■ COB307 ADVERTISING REGULATION AND ETHICS

The unit introduces students to and familiarises them with the various laws, regulations, standards, and codes which apply to all forms of advertising in Australia. Stu-

dents will examine selected contentious advertisements, some of which have been found to breach the current laws and self-regulation codes. They will also examine guidelines of the Trade Practices Commission with respect to current topical claims made in advertising, e.g. 'environmentally friendly', 'made in Australia', 'price' and general comparative claims. The unit will also cover specific problems in relation to advertising claims made in respect of certain 'products' e.g. food, real estate and credit.

Courses: BS50, BS56

Credit Points: 12

Prerequisite: COB308

Contact Hours: 3 per week

■ COB308 ADVERTISING THEORY AND PRACTICE

This subject serves as an introduction to later units in the communication course, and is a prerequisite for further advertising units. It is also a useful elective unit for management and accounting students. The principles of advertising give students an overview of the advertising industry. The unit traverses the interrelationship of the institutions of advertising, the advertisers, the advertising agencies, and the media. It details methods of determining advertising budgets, establishing target audiences, interpreting audience ratings, and circulation figures, and enables students to gain a preliminary understanding of the creative functions of the advertising industry. It also shows the ethical and legal side of advertising and its important role in today's society.

Courses: BS50, BS56

Prerequisites: COB216 or 96 credit points of approved prior study

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: MKB116

■ COB309 APPLIED COMMUNICATION RESEARCH

This unit follows up the Research Unit. Students demonstrate that they understand and can integrate communication principles used in the specialisations of organisational communication, public relations and advertising, through a wide variety of contexts, situations and problems. They participate in and present a project that demonstrates an understanding of applied communication research in designing communication responses to problems in local, national and international organisations. In addition, they will analyse a broad range of applied communication projects through national and international case studies. In effect, the unit highlights how communication challenges arise through competing interests of various publics and how effective messages, written texts, speeches, media presentations and campaigns have the capacity to impact on society.

Courses: BS50, BS56

Credit Points: 12

Prerequisite: COB203

Contact Hours: 3 per week

■ COB310 COMMUNICATION ISSUES

The unit examines the social structure and dynamics that influence the individual's perception and decoding of messages; attitude formation; consumer choice; behaviour change; and responses to professionally mediated communication. It uses a changing range of contemporary issues as a focus of applied theory. The course raises student awareness of contemporary issues that shape and respond to social practice, explaining how to track the emergence and development of these issues. A major focus of the unit involves a specific examination of the impact of communication technology on social discourse. The unit culminates in the creation of a theoretical base for the appropriate targeting of messages in the practice of public relations, advertising and organisational communication.

Courses: BS50, BS56

Prerequisites: COB318 or COB308 or COB325
Credit Points: 12 **Contact Hours:** 3 per week

■ **COB311 COMMUNICATION PRACTICE: INTERPERSONAL & PRESENTATIONAL STRATEGIES**

The unit explores interpersonal and presentational communication skills and how these interact with, and influence, attitudes and behaviours within organisations. It also looks at the concept and realities of power in organisational life. Theoretical bases of rhetoric, semiotics, and interpersonal communication will be foregrounded as they contribute to an understanding of strategic communication in a variety of workplace contexts. Theory and practice of different genres of spoken communication will be examined to develop understanding and self-reflexivity within students. Topics relating to organisational communication, public relations and advertising will inform content, practice and assessment.

Courses: BS50, BS56
Prerequisites: COB213 or 96 credit points of approved prior study

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: COB158

■ **COB312 COMPUTER MEDIATED COMMUNICATION**

Information access and distribution; organisational networks; computerised text analysis and style replicators; the human-machine interface and interpersonal relationships.

Courses: BS50, BS56
Credit Points: 12 **Contact Hours:** 3 per week

■ **COB313 CONSULTING FOR THE COMMUNICATION SPECIALIST**

This unit identifies and critically analyses organisational communication issues through planning a course of action; using research to monitor change; applying problem-solving skills. It is tailored for students who have completed most of the organisational communication major and is designed as an advanced level preparation for employment in the field. The student defines, analyses and makes recommendations to resolve a communication difficulty or problem that is relevant to an organisation. It requires that the student make pragmatic connections to a real issue.

Courses: BS50, BS56
Prerequisites: COB203, COB318
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: COB102

■ **COB314 CORPORATE WRITING AND EDITING**

This unit deals with current principles and practices in writing corporate documents. Students will develop an understanding of language and style to allow them to make the sophisticated rhetorical choices necessary in professional writing and publishing. Topics covered include the content, style and presentation of corporate documents, reader considerations and influences of new technology on corporate culture.

Courses: BS50, BS56
Prerequisites: COB217 or 96 credit points of approved prior study
Credit Points: 12 **Contact Hours:** 3 per week

■ **COB315 DIRECT RESPONSE ADVERTISING**

This unit builds upon the underlying philosophies and practice of direct marketing and direct response advertising in its various forms. A major focus will be on the creative aspects of direct marketing and direct response advertising including developing creative strategies, copywriting, effective direct response ads, and applying appropriate techniques. Skills in the appropriate areas

will be taught and practised. There is a considerable emphasis on practical work.

Courses: BS50, BS56 **Prerequisite:** COB306
Credit Points: 12 **Contact Hours:** 3 per week

■ **COB316 GOVERNMENT AND FINANCIAL RELATIONS**

Standards of social responsibility and public accountability in organisations and society. Through the presentation of case studies in financial and government relations, students develop an understanding of problem definition, the planning and implementing of public relations programs, and the communication strategies designed to solve specific problems.

Courses: BS50, BS56
Credit Points: 12 **Contact Hours:** 3 per week

■ **COB317 MEDIA PLANNING**

Topics of study include the following: costing and scheduling media, qualitative and quantitative factors affecting media selection and use, market targeting, researching the media plan, planning media strategy, coordinating media, media options, concepts of media decision-making, media exposure, media comparisons, media trends, and the computer.

Courses: BS50, BS56 **Prerequisite:** COB306
Credit Points: 12 **Contact Hours:** 3 per week

■ **COB318 ORGANISATIONAL COMMUNICATION**

This unit identifies and explores a range of issues of importance in organisations: organisational culture, power and politics, influence strategies, organisational change, managing diversity, including issues of gender and intercultural communication, impact of technology, and ethics. Both traditional and critical perspectives on managing communication will be explored.

Courses: BS50, BS56 **Prerequisite:** COB216
Credit Points: 12 **Contact Hours:** 3 per week

■ **COB319 PRINCIPLES OF DIRECT MARKETING**

This unit focuses on the basic principles and practices of direct marketing and its role in the marketing mix. The unit matter will cover the essential elements of direct marketing with emphasis on direct mail. Telemarketing, direct response advertising, fund-raising, database marketing, financial considerations, and legal and ethical issues will be covered. Emphasis will be given to the practical elements of direct marketing and hence a number of field visits are incorporated in this unit to ensure the appropriate skill mix is learnt.

Courses: BS50, BS56
Credit Points: 12 **Contact Hours:** 3 per week

■ **COB320 PROFESSIONAL ADVERTISING PRACTICE**

This subject places students in an industry environment where they are required to work in the four major areas of advertising: advertising management, production, creative and media planning. Students are required to write a report and relate their experience in an advertising agency to the course they have undertaken at QUT.

Courses: BS50, BS56 **Prerequisites:** COB309
Credit Points: 12 **Contact Hours:** 3 per week

■ **COB321 PROFESSIONAL PUBLIC RELATIONS PRACTICE**

Students must undertake 160 hours of field expertise within a relevant public relations function in an organisation or consultancy. Seminars are conducted before and after the work experience to prepare the students for the work environment and to analyse the work experience.

Courses: BS50, BS56
Credit Points: 12 **Contact Hours:** 3 per week

■ COB323 PUBLIC RELATIONS CAMPAIGNS

This is a specialist public relations unit allowing students to implement the tactical subjects taken throughout the public relations course, in a strategic and focused manner. It is practice-based and the lecture program consists of topics covering client relations, use of research, objectives-setting, the managing of campaigns, problem-solving, planning and organising special events and media relations. Specialist practitioners are invited to impart their experience in the field. The major assignment is a campaign for a community organisation which is conducted with students working in small groups.

Courses: BS50, BS56

Prerequisites: COB324, COB309

Credit Points: 12 **Contact Hours:** 3 per week

■ COB324 PUBLIC RELATIONS ISSUES & STRATEGIC PLANNING

The subject consists of four modules: public relations in the context of strategic management; the issues management trinity: government, business and community; strategic public relations research; and strategic public relations planning.

Courses: BS50, BS56

Prerequisites: COB324, COB203

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: MKB133

■ COB325 PUBLIC RELATIONS THEORY & PRACTICE

This subject introduces the theory and practice of public relations. The history, theories, models and management of public relations activities and processes are covered including methods of communicating with different groups within society. Students are introduced to areas of specialisation including employee relations, corporate identity development, community relations, financial relations, media liaison and government relations.

Courses: BS50, BS56

Prerequisites: BSB117, COB216 or 96 credit points of approved prior study

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: MKB124

■ COB326 PUBLIC RELATIONS WRITING

This subject develops students' abilities to plan, write and manage written and oral communication in the public relations context. It builds on earlier writing subjects to enable students to respond to specialist communication settings, media and audiences, increasing their ability to evaluate communication requirements and their flexibility in meeting these varying requirements. The subject offers a broad perspective on organising and developing writing functions in corporate settings, particularly with respect to corporate speechwriting and house newsletters and magazines, as well as providing the opportunity to advance public relations writing abilities.

Courses: BS50, BS56 **Prerequisite:** COB327

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: MKB120

■ COB327 PUBLICATION MANAGEMENT

This subject analyses the steps involved in communicating in print and managing this process. It focuses on the role of the communication consultant to negotiate tension between a client's specifications and an audience's requirements, and oversee the management of resources to produce a tangible print product, as a valuable element in a communication program. The subject offers students the opportunity to produce a 'real life' brochure for a client. Desktop publishing training is an adjunct to this subject, and is required for assignments.

Courses: BS50, BS56

Prerequisites: COB329
Credit Points: 12 **Contact Hours:** 3 per week

■ COB328 PUBLICITY AND PROMOTION – ELECTRONIC

Production skills in video as they apply to public relations in organisations. Students produce a video news release for a client organisation. This includes scripting, presenting and production management. Techniques for producing and placing community service announcements are covered.

Courses: BS50, BS56

Credit Points: 12 **Contact Hours:** 3 per week

■ COB329 PUBLICITY METHODS

This subject focuses on the tools and methods public relations practitioners use to obtain publicity for their organisation or client. Students are taught to write media releases, media alerts and material for media kits for both print and electronic media. Integral to all elements of the subject is the identification of newsworthiness and how this differs for different audiences and media. The students work 'hands on' in tutorials with various scenarios. 'Real World' clients are used for student assessment.

Courses: BS50, BS56

Prerequisites: COB217, COB325

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: MKB129

■ COB330 SPECIAL TOPIC – COMMUNICATION

This unit allows students to undertake studies in a special area of interest in the field of communication.

Courses: BS50, BS56

Credit Points: 12 **Contact Hours:** 3 per week

■ COB332 ISSUES IN PUBLISHING

The processes involved in book and magazine publishing; changing media habits and literacy skills of consumers; the impact of technology and business; strategic positioning; editorial concepts and steps in production.

Courses: BS50, BS56

Prerequisites: COB217 or 96 credit points of approved prior study

Credit Points: 12 **Contact Hours:** 3 per week

■ COB333 PUBLICITY AND PROMOTION – PRINT

This subject focuses on communication with the print media. Students are given the background, techniques and skills needed to work with newspapers, magazines and trade press. Producing and evaluating communication materials such as news releases, features and media kits form the core of the subject. Guest lecturers join the class to discuss aspects of media relations, news photography and publicity planning.

Courses: BS50, BS56

Credit Points: 12 **Contact Hours:** 3 per week

■ CON001 PROFESSIONAL COMMUNICATION

Oral and written presentation. Planning and organising ideas. Structuring reports, and oral presentations. Improving cohesion, clarity and style. Integrating written and oral communication.

Course: PS67

Credit Points: 4 **Contact Hours:** 2 per week

■ CON400 ADVANCED COMMUNICATION MANAGEMENT

Allows students, after an exposure to the diverse field of communication, to review aspects of this field in depth. Current issues in the theory and practice of human communication. Student and lecturing staff use the various perspectives, theories and applications explored in the program to consider the management of commu-

nication programs and systems.

Courses: BS93, BS88

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: CON103

■ CON401 ADVANCED ORGANISATIONAL COMMUNICATION

Organisational communication focuses how people relate with each other in modern organisational settings, from small businesses to multi-national organisations in the public and private sector. Drawing together theories of communication as they apply to workplace settings, the subject provides the opportunity to analyse and reflect on the role of communication in constructing the conditions for achieving productivity for organisations and rewards for employee participation.

Courses: BS93, BS88

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: CON102

■ CON402 CASE STUDY DEVELOPMENT

This unit teaches the individual how to develop an effective and provocative case study. The development consists three phases: (a) researching and analysing, (b) writing and strategically preparing, and (c) presenting. The case study development enhances the individual's critical thinking and builds one's presentational skills. The person will research a business, industry, or campaign to identify the critical problems or innovative solutions. Based on the research, the person will construct a report that emphasises significant issues. The report will incorporate appropriate presentational formats to highlight the issues.

Courses: BS93, BS88

Prerequisites: CON406 or CON420

Credit Points: 12 **Contact Hours:** 3 per week

■ CON403 COMMUNICATING BREAKTHROUGH SERVICE

Breakthrough service goes beyond merely 'good' service to reach the point of 'having no second' as a competitor. The world's best practice companies reach this point and become the benchmark for their respective industries. This course shows individuals the relationship between breakthrough service and increased profit, productivity and morale. The course demonstrates how the organisation can communicate the importance of profitability related to service, customer satisfaction that makes a difference, corporate cultures that motivate employees to engage in breakthrough service, and corporate values that lay the foundation for breakthrough service.

Course: BS93

Credit Points: 12 **Contact Hours:** 3 per week

■ CON404 COMMUNICATION PRACTICE FOR PROFESSIONALS

This unit covers key theoretical principles and practical applications of presentation and writing skills in the workplace. Topics include theories of language and communication, structuring and designing for an audience, analysis of documents and speech presentations, managing and mentoring the writing and presentation skills (including media interviews) of staff, and preparation for staff training and consulting in these roles.

Course: BS88

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: COB217, COB213

■ CON405 COMMUNICATION PROJECT

Students in the coursework Masters program undertake a study of an applied or theoretical communication issue. This will be based on the published literature and may also involve primary research. Students may wish to undertake a study of a communication issue or prob-

lem in a particular organisation or industry. Project supervision will be arranged by the Course Coordinator through consultation with the student and available staff members. The report should be of approximately 7 000 words.

Course: BS88

Credit Points: 24

Prerequisites: CON402

■ CON406 COMMUNICATION STRATEGIES

Communication theory put into practice. Examples of policy and plans; how to produce the appropriate change through communication. The ethics of persuasion and the problems of cooperation explored in the process of policy formation and planning. Students take into account the social implications of producing change, the role of the change agent and ways to monitor the effects in Australia as well as developing societies.

Courses: BS63, BS92, BS93, BS88

Prerequisites: Undergraduate degree in Communication or CON420

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: CON101

■ CON407 COMMUNICATION TECHNOLOGY AND GLOBAL NETWORKS

This unit examines the technical principles and organisational features of contemporary and emerging communication technologies, and specifically focuses on global networks used for interpersonal and inter-organisational purposes within national and international communities. Theories of planned and unplanned change are applied to assess the social and economic impact of these technologies. Among the topics to be addressed are information society, participatory forms of social change, the integration of interactive media through the global transmission of data in digital form, and the organisational applications of high-definition video.

Courses: BS63, BS88, BS92, BS93

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: COP108

■ CON408 CRISIS COMMUNICATION

This subject examines the strategic management of crisis communication including pre-crisis planning, issues identification, audience prioritisation, strategy formulation, tactical planning and implementation and evaluation. The subject covers both internal and external communication during times of crisis. Pre-crisis issues management will be addressed as well as proactive and defensive communication strategies during crisis. The subject will demonstrate the application of general communication tools to a specialised area.

Course: BS93

Credit Points: 12

Contact Hours: 3 per week

■ CON409 FINANCIAL COMMUNICATION

The unit reviews all aspects of the public relations function in communicating with financial markets. Specific focus is placed on how publicly listed companies meet both regulatory and marketing requirements in communicating with external audiences. Suitable communication tools will be examined for use in ongoing investor relations programs as well as in specialist situations including financial communication during takeover and capital raising periods.

Courses: BS88, BS93

Credit Points: 12

Contact Hours: 3 per week

■ CON410 INTERPERSONAL COMMUNICATION AND NEGOTIATION

This unit explores the theory and practice of interpersonal communication and negotiation. It focuses on the role of interpersonal and group skills in the development of effective work teams. Current understandings of the dynamics of power and participation in communication

processes in organisations will be used to contextualise the experience of the individual and the group. An analysis of the possibilities of, and the constraints on, effective interpersonal communication will be undertaken to provide the opportunity for students to develop strategies to support workplace practice.

Course: BS88

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: COB213, COB205

■ CON411 INDEPENDENT STUDY UNIT

An opportunity for advanced level postgraduate students to undertake individual research in an area which is complementary to their course work.

Course: BS73

■ CON412 INTERNATIONAL ADVERTISING

The unit considers the assertion by Levitt that companies should globalise marketing and advertising strategies by applying the same strategy in all foreign and domestic markets. This viewpoint is contrasted by theorists such as Kashani, and Murrow, who suggest that a number of factors necessitate the development of separate strategies in some international advertising situations. Issues of international advertising will be discussed, including regulatory requirements for comparative advertising, children's advertising, media availability and local production considerations.

Course: BS93

Credit Points: 12 **Contact Hours:** 3 per week

■ CON413 ISSUES IN INTERCULTURAL COMMUNICATION

This unit addresses issues which are related to: culture as a determinant of human behaviour (stereotypes, typifications and human uniqueness); the dynamics of intercultural contact for interpersonal cooperation and/or competition; the implications of cultural diversity for societal enrichment or disintegration; the consequences for self identity in and interconnected world.

Courses: BS88, BS93

Credit Points: 12 **Contact Hours:** 3 per week

■ CON414 PUBLIC COMMUNICATION CAMPAIGNS

This unit explores the scope and context of public communication campaigns – how they are constructed, their assumptions and research methods underpinning them, and asks students to consider whether campaign planning and evaluation is as effective as it might be. The unit also explores community activities to develop a public issue, and community consultation as a process.

Courses: BS88, BS93

Credit Points: 12 **Contact Hours:** 3 per week

■ CON415 PUBLIC RELATIONS MANAGEMENT

This unit provides an understanding of the theory and practice of public relations. The history, theories, models and management of public relations activities and processes are covered including methods of communicating with different groups within society. Students will explore areas of specialisation including issues management, community consultation, crisis management, community relations, media liaison and government relations.

Course: BS88

Credit Points: 12 **Contact Hours:** 3 per week

■ CON416 READINGS IN COMMUNICATION

This unit provides students with the opportunity to explore in depth the literature on a particular topic or area of communication under the direction of a supervisor. The readings should integrate and consolidate aspects of the studies undertaken in the course to date. Students are required to meet regularly with the supervisor for

discussion and advice and to submit a paper of 3 500 to 4 000 words at the end of semester.

Course: BS93

Prerequisites: CON418 or CON413 or CON409

Credit Points: 12 **Contact Hours:** 3 per week

■ CON417 SEMINAR IN ADVERTISING MANAGEMENT

This unit empowers students to make effective management decisions within the advertising process. It examines the setting of advertising objectives, and the need for coordination of these with marketing, communication and organisational objectives. It develops a sound understanding of advertising regulations and ethics, budgeting, research and campaign coordination. It further examines management's participation in the creative, media and production processes, and the contribution of advertising management to the cohesion and creativity of the agency.

Course: BS88

Credit Points: 12 **Contact Hours:** 3 per week

■ CON418 SEMINAR IN MEDIA STRATEGY

One of the ultimate determinants of the effectiveness of any advertising campaign is the media strategy. This unit examines ways to improve efficiency in media planning, buying, coordination and research. It examines concepts of media decision making, market targeting through the creative use of media, and strategic planning. It explores current media campaigns, and encourages the development of a more creative and integrated approach to media.

Courses: BS88, BS93

Credit Points: 12 **Contact Hours:** 3 per week

■ CON419 STRATEGIES FOR CREATIVE ADVERTISING

This unit develops the implications arising from current theories of creative advertising. The unit requires students to develop an advanced applied and theoretical perspective of creative strategy. Areas for advanced discussion include the development of a creative process versus the concept of 'illumination', creative verification, and the use of appeals and execution styles, and how they affect the creative impact of a campaign or advertisement, and the message development of the communication process.

Courses: BS88, BS93

Credit Points: 12 **Contact Hours:** 3 per week

■ CON420 THEORIES OF HUMAN COMMUNICATION

This course surveys the intellectual currents that inform the communication discipline. As communication is a multidisciplinary study, a wide range of theories, methods and contexts will be covered. This course will provide a foundation for understanding communication in a sophisticated and systematic way, and will apply that understanding to real-life business situations.

Course: BS88

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: COB216, COB113

■ CON421 SEMINAR IN INTEGRATED MARKETING COMMUNICATION

Students will be developing the theoretical concepts of integrated marketing communication in a practical environment. Issues include budgeting, planning and evaluation of integrated marketing communication programs.

Courses: BS85, BS61

Prerequisites: 48 credit points of approved prior study.

Credit Points: 12 **Contact Hours:** 3 per week

■ CON422 LANGUAGE AND POWER

This largely theoretical unit adopts a discourse approach to language. That is, the unit assumes that language is

fundamental in shaping relations of power through its constructive effects in shaping social and individual identity and its constitutive effects in presenting reality in particular culturally specific ways. The unit initially develops a theoretical understanding of how language use differs in various sites according to the participants, the context and the focus of activity for which the language is being used. From this, students are introduced to a variety of discourse analysis methods such as Speech Act Theory, Sociolinguistics and Conversation Analysis.

Courses: BS72, BS92, BS93

Credit Points: 12 Contact Hours: 3 per week

■ CON423 ADVANCED CORPORATE WRITING

This unit deals with current principles and practices in writing and designing corporate documents both on paper and online. Topics covered include the content, style and presentation of corporate documents such as memos, letters, reports, proposals, submissions, job portfolios, organisational policy and procedural manuals, and news-letter articles. Emphasis is placed on the politics of corporate writing, and the influence of new technologies such as Email on corporate culture.

Courses: BS72, BS92, BS93

Credit Points: 12 Contact Hours: 3 per week

■ CON424 PUBLIC RELATIONS METHODS

This unit examines theories underpinning mass media and links these with the practice of public relations media tactics. Students analyse techniques and skills used in liaison with electronic media, print media, trade media and news media. Producing and evaluating communication materials such as news releases, features and media kits forms an important part of the unit. Students will develop strategic thinking through analysis of contemporary media case studies.

Courses: BS88

Credit Points: 12 Contact Hours: 3 per week

■ CON500 RESEARCH METHODS

The purpose of this study is to provide students with a range of ideas and methods that will enable them to analyse, evaluate and conduct research in discipline areas related to business. It provides an essential and basic preparation for the development of a thesis or dissertation proposal. Areas of study cover both qualitative and quantitative approaches and include: research paradigms; analysis and criticism; research design; data collection; data manipulation and interpretation; and presentation.

Courses: BS63, BS92

Credit Points: 12 Contact Hours: 3 per week

■ CON501 RESEARCH SEMINAR

Designed to prepare students for writing their thesis; group instruction in techniques of thesis writing and what is involved in preparing a literature review and thesis proposal. Students choose a topic, have it approved and choose a supervisor under whose guidance they will undertake a literature review.

Courses: BS63, BS92

Corequisite: CON500

Credit Points: 12 Contact Hours: 3 per week
Incompatible with: BSP102

■ CPB330 ABORIGINAL & TORRES STRAIT ISLANDER EDUCATION POLICY

Historical, economic, social factors influencing the position of Aborigines and Torres Strait Islanders; cultural factors and educational policies and programs; development of policies and programs appropriate for these people.

Courses: ED37, ED50, ED51, ED52, ED54

Credit Points: 12 Contact Hours: 3 per week

■ CPB331 ASIAN CULTURE & EDUCATION

Provides pre-service teachers with knowledge and skills for working in the Asian context of Australian educa-

tion. Content includes: cultural forms in Asia; contemporary socio-political developments; past and present educational strategies; promoting informed Asian awareness in curriculum and classrooms.

Courses: ED37, ED50, ED51, ED52, ED54

Credit Points: 12 Contact Hours: 3 per week

■ CPB332 SCHOOL-COMMUNITY RELATIONS

The range of inter-relationships between communities and educational activities; comparative studies; policy and its implications for developing strategies; techniques and skills for analysing community needs; some skills to improve effectiveness in working with the community.

Courses: ED37, ED50, ED51, ED52, ED54

Credit Points: 12 Contact Hours: 3 per week

■ CPB333 POLICY MAKING AND CHANGING SCHOOL PRACTICES

The relevance of contemporary policy initiatives for classroom and school practices; how policy may be used strategically to enhance professional practice and to provide skills in critical policy analysis. How beginning teachers may respond critically and constructively to pressures within devolved education systems to participate in policy formation, assessment and implementation.

Courses: ED37, ED50, ED51, ED52, ED54

Credit Points: 12 Contact Hours: 3 per week

■ CPB334 POWERFUL TEACHERS, POWERFUL STUDENTS

Thematic questions about teaching: understanding the current notion of teacher/student power; ways of understanding teacher/student power and teaching through powerful and empowering teaching/learning models; the practical knowledge needed to empower beginning teachers.

Courses: ED37, ED50, ED51, ED52, ED54

Credit Points: 12 Contact Hours: 3 per week

■ CPB335 TEACHER AS RESEARCHER

The role that research can play in improving teachers' everyday practice. Draws on advocacy models of research to develop actual strategies by which practitioners can inform their own educational work and evaluate its effectiveness.

Courses: ED37, ED50, ED51, ED52, ED54

Credit Points: 12 Contact Hours: 3 per week

■ CPB336 EDUCATION & CULTURAL DIVERSITY

The complex issues involved in catering for cultural diversity in schools and other education settings and strategies for professional practice in contexts of cultural diversity. Contents include: cultural change in education; racism in schooling; curriculum issues; English as a second language; school-community relations.

Courses: ED37, ED50, ED51, ED52, ED54

Credit Points: 12 Contact Hours: 3 per week

■ CPB337 GENDER & EDUCATION

The significance of gender issues in education, together with knowledge of relevant research and policy developments. There will be an emphasis on the implications for school organisation, curriculum and teaching strategies.

Courses: ED37, ED50, ED51, ED52, NS48, ED54

Credit Points: 12 Contact Hours: 3 per week

■ CPB338 IDENTIFYING & RESPONDING TO STUDENT DIFFERENCES

The range of perceptions and reactions to individual difference; the psychological explanations for the sociocultural contexts of difference in schools; perspectives on the identification and classification of special

educational needs. From a commitment to social justice and equity, it examines policy initiatives which impact on learners and teachers; identifies appropriate strategies.

Courses: ED37, ED50, ED51, ED52, ED54

Credit Points: 12 Contact Hours: 3 per week

■ **CPB339 TEACHING ABORIGINAL & TORRES STRAIT ISLANDER STUDENTS**

An examination of the cultural, linguistic and social background of Aboriginal and Torres Strait Islander students and their current educational needs. Curriculum issues and classroom strategies for more effective teaching of Aboriginal and Torres Strait Islander students, together with strategies for working with parents and the community.

Courses: ED37, ED50, ED51, ED52, ED53, ED54

Credit Points: 12 Contact Hours: 3 per week

■ **CPB340 CONTEXT OF ADULT AND WORKPLACE EDUCATION**

The impact of major social, economic, cultural, environmental and technological trends on education, work and citizenship. A range of interpretations and perspectives is presented. Participants evaluate and relate these to the practical contexts of their work as adult and workplace educators.

Course: ED54

Credit Points: 12 Contact Hours: 3 per week

■ **CPB341 COMMUNITY, LEADERSHIP & CITIZENSHIP**

Contemporary issues and factors impacting on communities and creating special needs for community education, leadership and organisational capacities, improved cultural awareness, and revitalised practices of active and informed citizenship.

Course: ED54

Credit Points: 12 Contact Hours: 3 per week

■ **CPB342 EDUCATION IN CONTEXT**

Education and change in a post-modern society; the implications for education of the complex and diverse nature of Australian society; the role of policy making in meeting the educational challenges of the 1990s.

Courses: ED50, ED51, ED52

Credit Points: 12 Contact Hours: 3 per week

■ **CPB343 UNDERSTANDING EDUCATIONAL PRACTICES**

The social, cultural, historical and political contexts of schooling; technologies, practices and strategies employed by schools; the curriculum as a contested site; the place of schooling in the modern state. Critical reflection by students is encouraged, allowing them to engage with others as co-theorists in pedagogical work.

Courses: ED50, ED51, ED52, ED53, ED54

Credit Points: 12 Contact Hours: 3 per week

■ **CPB420 CONTEMPORARY ISSUES IN EDUCATION**

The cultural and social contexts and psychological factors relevant to the processes of education and schooling in an era of change; application of the principles of social justice to the evaluation of education policy and practice, and analysis of social and personal action relevant to educational change.

Course: ED26

Credit Points: 12 Contact Hours: 3 per week

■ **CPB421 PHILOSOPHICAL PERSPECTIVES ON SCHOOLING**

Developments in philosophy of education which account for the micro-institutional practices of schooling, school prospectuses, timetables, school architecture, classroom work, equity issues.

Course: ED26

Credit Points: 12

Contact Hours: 3 per week

■ **CPB422 PHILOSOPHY IN THE CLASSROOM**

Philosophical belief systems underlying approaches to learning, knowledge and curriculum. Justice and fairness to both teachers and students in the classroom. Current developments in classroom practices.

Course: ED26

Credit Points: 12

Contact Hours: 3 per week

■ **CPB423 SOCIETY, SOCIAL POLICY & EDUCATION**

Education as social policy; historic, economic and political context of educational policy making; education and social justice; policy, change and practice.

Course: ED26, ED50, ED51, ED52, ED54

Credit Points: 12

Contact Hours: 3 per week

■ **CPB424 SOCIOLOGY OF THE SCHOOL**

An analysis of schools and classrooms within a social context; students draw implications to assist them in carrying out their teaching and administration practices more effectively.

Course: ED26

Credit Points: 12

Contact Hours: 3 per week

■ **CPB425 AESTHETIC EDUCATION**

An examination of aesthetics, both traditional and contemporary, and the relevance they have for understanding the role the arts play in education; the democratisation of culture, encouraging more representative forms of cultural production; evaluation of the arts, particularly in the classroom; theory of creativity and the imagination; the deficiencies of an individualistic ethic in the arts.

Course: ED26

Credit Points: 12

Contact Hours: 3 per week

■ **CPB441 HISTORY OF AUSTRALIAN EDUCATION**

The growing involvement of the state in education during the nineteenth century; factors which led to the state accepting responsibility for elementary education; growth of educational bureaucracies; state involvement in secondary education; establishment of tertiary education in Australia; the influence of particular reports on Australian education.

Course: ED26

Credit Points: 12

Contact Hours: 3 per week

■ **CPB442 EDUCATION FOR A MULTICULTURAL SOCIETY**

Over the last decade, multiculturalism has replaced assimilation as an approach to migrants. In this unit teachers are given specialist knowledge and skills to prepare students for life in a multicultural society.

Courses: ED26, ED50, ED51, ED52, ED54, ED61

Credit Points: 12

Contact Hours: 3 per week

■ **CPB443 COMPARATIVE & INTERNATIONAL EDUCATION**

Australia's identity in the international community has significant implications for education. The major international issues in education are introduced through studies of global developments and by comparing Australian education with other cultures; develops skills and knowledge appropriate for teachers of the 1990s and the next century.

Courses: ED26, ED61

Credit Points: 12

Contact Hours: 3 per week

■ **CPB444 ISSUES IN ABORIGINAL EDUCATION**

Factors influencing the position of Aborigines and Islanders in Australian society; government policies; Abo-

iginal culture and education; current initiatives; participation of Aborigines in policies and programs.

Courses: ED26, ED61

Credit Points: 12 Contact Hours: 3 per week

■ **CPB446 WOMEN, EDUCATION & SOCIAL CHANGE IN AUSTRALIA**

Education and other social policy initiatives relating to women; current debates on the status of women and education's intervening role; ideology and the position of women; effects of economic and technological change; educational implications.

Courses: ED26, ED50, ED51, ED52, ED54, ED61

Credit Points: 12 Contact Hours: 3 per week

■ **CPN603 CHANGING AGENDAS IN LEADERSHIP EDUCATION**

The meaning of leadership in a world of change and dilemma, where, for example, corporate managerialism has to be reconciled with democratic, collaborative, gender and equity policy considerations. Contemporary differing approaches to the study of leadership are examined, including organisation theory, women and leadership, ethics and leadership, cultural analysis and critical theory.

Courses: ED13, ED11, ED61

Credit Points: 12

■ **CPN604 EQUITY AND EDUCATION MANAGEMENT ISSUES AND STRATEGIES**

An examination of the theory and practice of equity policies at all levels of educational management. Particular emphasis on issues of gender and educational leadership, disability, race and ethnicity.

Courses: ED13, ED11, ED61, IF64

Credit Points: 12

■ **CPN605 ORGANISATIONAL CULTURES AND EDUCATION LEADERSHIP**

An investigation of the dimensions of culture in educational organisations undergoing change through examining key issues that are covered with economic rationalism and social justice, strategic planning/management and leadership, cultural analysis and design and particularly devolution and accountability.

Courses: ED13, ED11, ED61

Credit Points: 12

■ **CPN606 EDUCATIONAL LEADERSHIP, POWER AND CAREERS**

Issues in the changing nature of work relating to class, race and gender as determined by the power structure within society and organisations. A personal understanding of the concept of career that encourages individuals to proactively reconsider their own life stream in the discontinuous, changing world of the 1990s is the focus.

Courses: ED13, ED11, ED61

Credit Points: 12

■ **CPN607 GLOBAL CHANGE, DIVERSITY AND EDUCATION**

An introduction to policy approaches in education used in post-colonial nation-states, especially those in the Third World and in the Asia-Pacific region. It asserts that many of these nation-states are 'dependent cultures' and that education is framed by Western models. Alternative modes of education and policy in the international setting are explored.

Courses: ED13, ED11, ED61, IF64

Credit Points: 12

■ **CPN608 GENDER EQUITY AND EDUCATION POLICY**

Gender-equity is an important component of recent educational reform. The theories and policies underlying its

adoption in educational systems and the socio-cultural contexts which has shaped its adoption.

Courses: ED13, ED11, ED61, IF64

Credit Points: 12

■ **CPN609 POLICY FOR PRACTITIONERS**

Policy analysis is an important component of contemporary educational practice. No change to schooling practices is contemplated when undergirded with a policy shift. Introduces students to skills of policy writing and analysis, and places these skills in the socio-economic and cultural context in which they arise.

Courses: ED13, ED11, IF64

Credit Points: 12

■ **CPN610 YOUTH POLICIES AND POST-COMPULSORY EDUCATION**

Post-compulsory education, a feature of recent policy formation, has brought into renewed focus the nature of youth as a category of concern. The degree to which 'youth' as a category is understood in the new post-compulsory policies (Finn, Carmichael and Mayer) is examined.

Courses: ED13, ED11, ED61, IF64

Credit Points: 12

■ **CPN611 POLICIES AND PRACTICES FOR INCLUSIVE EDUCATION**

The socio-cultural, organisational, curriculum and pedagogical contexts of child care and education with a focus on the ways in which special needs are socially constructed and the ways in which this is manifested in educational settings. Identification of procedures conducive to the formation, articulation and implementation of inclusive educational policies and practices in a range of educational and child care settings. Children's disruptive and challenging behaviours.

Courses: ED13, ED11

Credit Points: 12

■ **CPP411 UNDERSTANDING EDUCATION IN CONTEMPORARY AUSTRALIA**

The teacher as a professional; classroom practice; school culture and organisation; national issues affecting schooling.

Courses: ED35, ED36, ED37

Credit Points: 12

Contact Hours: 3 per week

■ **CPP412 UNDERSTANDING EDUCATION IN CONTEMPORARY AUSTRALIA**

The teacher as a professional; classroom practice; school culture and organisation; national issues affecting schooling.

Course: ED37

Credit Points: 12

Contact Hours: 3 per week

■ **CPP501 SOCIO-CULTURAL ISSUES IN EDUCATION**

Examines socio-cultural contexts of schooling; the pastoral care and special needs industries; resistance and disruption in schools; disability and integration.

Course: ED24

Credit Points: 12

Contact Hours: 3 per week

■ **CUB330 EDUCATION LAW AND THE BEGINNING TEACHER**

Legal literacy; sources of education law; students' and rights; students' law and schools; parents law and education; teachers' rights and obligations; teachers and school-based accidents; educational malpractice.

Courses: ED37, ED50, ED51, ED52, ED54

Credit Points: 12

Contact Hours: 3 per week

■ **CUB331 MAINSTREAM INTEGRATION OF CHILDREN WITH DISABILITIES**

Historical and philosophical analysis of the evolution of education and education policy related to children with special needs and disabilities. Individuals exhibiting

learning problems: identification, diagnosis, profiling and program development. Curriculum issues related to integration; communication; classroom management; use of resources; Individual Educational Programs (IEP); team teaching; networking; curriculum design and modification; the multifaceted role of a consultant/adviser in school.

Courses: ED50, ED51

Credit Points: 12 Contact Hours: 3 per week

■ CUB332 ADULT EDUCATION IN THE WORKPLACE AND COMMUNITY

The nature of all common forms of adult education, with particular emphasis on workplace and community settings; analyses key concepts and views of leading adult educators, and relates them to current attempts in Australia to provide effective forms of post-compulsory education and training.

Course: ED54

Credit Points: 12 Contact Hours: 3 per week

■ CUB333 FIELD EXPERIENCE 1

Module One of this unit gives participants an understanding of the basic principles of self-directed learning and action learning, both of which underpin the Field Experience Program. Participants will also develop practical skills and understanding with respect to determining the education or training needs of adults. The second module is based on the Workplace Trainer Competence Standards Category 2. The students achieve the required performance criteria in a workplace situation.

Course: ED54

Credit Points: 12

Contact Hours: 10/20 day placement; pre- and post-tutorials

■ CUB334 FIELD EXPERIENCE 2

Students undertake to complete any two of a specified set of modules. The modules are based on the Workplace Trainer Competency Standards Category 2. The students achieve the required performance criteria in a workplace situation.

Course: ED54

Prerequisite: CUB333

Credit Points: 12

Contact Hours: 20 day placement; pre- and post-tutorial

■ CUB335 FIELD EXPERIENCE 3

Students undertake to complete any two of a specified set of modules. The modules are based on the Workplace Trainer Competency Standards Category 2. The students achieve the required performance criteria in a workplace situation.

Course: ED54

Prerequisites: CUB334

Credit Points: 12

Contact Hours: 20 day placement; pre- and post-tutorial

■ CUB336 FIELD EXPERIENCE 4

Students undertake to complete two final modules. The seventh module is based on the Workplace Trainer Competency Standards Category 2. The students achieve the required performance criteria in a workplace situation. The eighth module is based on a negotiated project.

Course: ED54

Prerequisites: CUB335

Credit Points: 12 Contact Hours: 20 day placement; pre- and post-tutorial

■ CUB337 ORIENTATION TO ADULT AND WORKPLACE PROGRAMS

Basic concepts in curriculum and curriculum processes for contemporary adult, workplace and community education. The nature of programs; investigating needs, competencies and outcomes; planning learning opportunities; participant assessment and program evaluation.

Course: ED54

Credit Points: 12 Contact Hours: 3 per week

■ CUB338 THE GROUP IN ADULT AND WORKPLACE EDUCATION

Introduction to the theory relating to groups and explores processes which occur in adult groups. Participants deal with practical applications for educational settings, with special emphasis on developing facilitating skills.

Course: ED54

Prerequisite: CUB339

Credit Points: 12

Contact Hours: 3 per week

■ CUB339 INSTRUCTIONAL STRATEGIES FOR ADULT AND WORKPLACE EDUCATORS

Exploration of theories and practices related to effective instructional strategies in diverse settings; introduction to skills and concepts required by competent practitioners in formal and non-formal teaching and learning settings within workplaces and communities.

Course: ED54

Corequisites: CUB337

Credit Points: 12

Contact Hours: 3 per week

■ CUB340 PROGRAMMING IN ADULT AND WORKPLACE EDUCATION

Important aspects of responsive programming for adult and workplace education. Covers the planning, implementation, evaluation and reflection components of program development, design and delivery.

Course: ED54

Prerequisites: CUB339

Credit Points: 12

Contact Hours: 3 per week

■ CUB342 LAW IN THE ADULT AND WORKPLACE ENVIRONMENT

Recent legal and legislative developments mean that employers and employees require greater awareness of their legal responsibilities in all workplace environments. This unit provides a level of legal literacy appropriate to sound legal risk management in workplace settings.

Course: ED54

Credit Points: 12

Contact Hours: 3 per week

■ CUB343 OPEN LEARNING AND FLEXIBLE DELIVERY

Deals with the concepts and research relating to 'open' and 'distance' learning as well as 'flexible' and 'workplace' delivery using a range of communications and information technologies. Experience in the use of the technology and educational design, strategies and techniques is developed. (Students will need easy access to a computer and modem.)

Course: ED54

Credit Points: 12

Contact Hours: 3 per week

■ CUB350 EARLY CHILDHOOD PRACTICES 1

Within the focus of the teacher and children learning together, the following topics are introduced: the planning cycle; why observe? what/when/how?; techniques of recording observable behaviour with specific emphasis on language and thinking; creating positive language environments; play as a means of learning; basic skills for teachers.

Courses: ED43, ED52

Prerequisite: CUB365

Credit Points: 12

Contact Hours: 2.5 per week

■ CUB351 EARLY CHILDHOOD PRACTICES 2

Continuing the interactive focus, there will be further development of Year 2, Semester 1 topics in order to deepen understanding and extend teaching strategies.

Courses: ED43, ED52

Prerequisite: CUB350

Credit Points: 12

Contact Hours: 2.5 per week

■ CUB352 EARLY CHILDHOOD PRACTICES 3

Within the focus of teacher/child decision making, emphasis is placed on: observing social interactions and children's making of meaning; teaching strategies relating to conflict management and discipline; the monitoring of children's progress; the creation of positive learning environments, especially for children from birth to 3 years.

Courses: ED43, ED52 **Prerequisite:** CUB351
Credit Points: 12 **Contact Hours:** 2.5 per week

■ **CUB353 EARLY CHILDHOOD PRACTICES 4**
Further analysis of the complexities of interactions within learning environments, particularly relating to: maths/science; the arts; teaching strategies for the appropriate use of technology within the educational setting with emphasis on creating learning centres for children 5-8 years.

Courses: ED43, ED52 **Prerequisite:** CUB352
Credit Points: 12 **Contact Hours:** 2.5 per week

■ **CUB354 EARLY CHILDHOOD PRACTICES 5**
Within the focus of negotiation, and the teacher-child-parent-community, this unit reviews and analyses a variety of teaching approaches in early childhood, extending strategies for supporting children's play with a particular emphasis on literature and the arts; recognising emerging professionalism; research skills and independent adult learning.

Course: ED52 **Prerequisite:** CUB353
Credit Points: 12 **Contact Hours:** 2.5 per week

■ **CUB355 EARLY CHILDHOOD PRACTICES 6**
Synthesis of knowledge gained to date in terms of developing a personal teaching style and philosophy; ethical responsibility; the roles of the teacher as reflective practitioner, action researcher, advocate, administrator and leader; preparing for a teaching career and examining career paths in early childhood.

Course: ED52 **Prerequisite:** CUB353
Credit Points: 12 **Contact Hours:** 2.5 per week

■ **CUB356 PROFESSIONAL PRACTICE 1**

The school experience program of 20 days provides students with opportunities to continue their observations of educational settings and to apply their professional and discipline studies to the planning, resourcing, teaching and evaluation of a series of related lessons. While observations focus on the development and implementation of school-wide curriculum, in the teaching of lessons emphasis is given to formulation of objectives, communication skills, motivation and management of learners, and self-evaluation. Students develop their skills in personal and professional relationships within the school community.

Course: ED50 **Prerequisite:** CUB365
Credit Points: 12

■ **CUB357 PROFESSIONAL PRACTICE 2**

This program consists of a 25 day block session with pre-placement on-campus tutorials. It concentrates on the development of those skills needed in teaching effectively units of work that are planned collaboratively with cooperating teachers. It challenges students to cater for the learning styles of their pupils by incorporating a rich variety of teaching strategies and classroom organisational skills. Students are expected, through analysis and reflection, to promote praxis between their university studies, their teaching and other school experiences.

Course: ED50
Prerequisites: Curriculum Studies X/Y, CUB356
Credit Points: 12

■ **CUB358 PROFESSIONAL PRACTICE 3**

This program of 20 days (ED54) – 25 days (ED50) aims at extending confidence and competence in teacher roles to a level commensurate with that of a beginning teacher. Preservice teachers assume full responsibility for implementing units of work. They draw upon their teaming and other professional skills in fulfilling teachers' day-to-day responsibilities. Emphasis is placed on self-evaluation and critical reflection.

Courses: ED50, ED54
Prerequisites: CUB357 (ED50), CUB356 (ED42)

Corequisites: Curriculum Studies X/Y (ED50)
Credit Points: 12

■ **CUB359 PROFESSIONAL PRACTICE 4: THE BEGINNING TEACHER**

This unit is structured so that integration is achieved across all strands of the course in preparation for the students' transition from 'tertiary student' to 'beginning teacher', and the career development processes which this entails. Students study research on beginning teaching across a variety of contexts. Attention is given to teacher recruitment processes.

Course: ED50
Corequisite: Curriculum studies 2X and 2Y
Credit Points: 12

■ **CUB360 TEACHERS AS COMMUNICATORS & PROFESSIONAL PRACTICE 1**

This unit is concerned with communication at various levels and in a range of contexts. Its focus is directed towards individuals and groups of learners in the primary school. The unit is operated in a 1 hour/week class on campus and 15 single days (1 introduction and 1 day/week) in schools.

Course: ED51 **Prerequisite:** CUB365
Credit Points: 12

Contact Hours: 1 hour per week and 1 day per week in schools plus 1 day of initial

■ **CUB361 TEACHERS AS MANAGERS & PROFESSIONAL PRACTICE 2**

The management of planning; implementation and evaluation in the classroom; the relationship of management and classroom climate and control.

Course: ED51 **Prerequisite:** CUB360
Credit Points: 12

Contact Hours: 1 hour per week and 1 day per week in schools plus 1 day of initial

■ **CUB362 TEACHERS AS CURRICULUM DECISION MAKERS & PROFESSIONAL PRACTICE 3**

Examination of aspects of curriculum decision making to acquire the knowledge, skills and processes necessary for short-term and long-range planning. Curriculum development, curriculum implementation and curriculum evaluations are investigated to refine daily, weekly and term programs. State and federal initiatives in curriculum are assessed so that classroom teachers can confidently interpret curricula for the needs and capabilities of diverse groups of learners. The block practice component of the unit provides opportunities to design, test and refine personal decision-making models, approaches, strategies and programs.

Course: ED51 **Prerequisite:** CUB361
Credit Points: 12

Contact Hours: 1 per week and 3 week block

■ **CUB363 TEACHERS AS RESPONSIVE PRACTITIONERS & PROFESSIONAL PRACTICE 4**

This unit is concerned with responding effectively to the many and varied teaching/learning contexts within today's classrooms and schools. Its focus is directed from traditional/open classroom to the wider communities encompassing state/private, rural/distance and Aboriginal/migrant education.

Course: ED51 **Prerequisite:** CUB362
Credit Points: 12

Contact Hours: 1 hour per week and 3 week block in schools following Easter vacation.

■ **CUB364 TEACHERS AS REFLECTIVE PRACTITIONERS & PROFESSIONAL PRACTICE 5**

Prior to graduation, students need to synthesise the range of skills, attitudes and knowledge sources that they have

experienced through the course, to ensure an effective transition into professional practice. This unit attempts to pursue this goal through further developing teachers as reflective practitioners, taking responsibility for the shaping of educational practice from their own perspective.

Course: ED51

Prerequisite: CUB363

Credit Points: 12

Contact Hours: 1 hour per week and 3 week block in schools following September vacation.

■ CUB365 INTRODUCTION TO PROFESSIONAL PRACTICE IN EDUCATION

The nature of teaching and the role of teachers are studied using curriculum decision-making and critically reflective frameworks. Teaching is viewed as a complex personal and social process which is highly interactive, while the role of the teacher is elaborated with reference to the concepts of the teacher as observer, communicator and facilitator of learning.

Courses: ED50

Credit Points: 12

Contact Hours: 3 per week

■ CUB366 LEARNING/TEACHING ENVIRONMENTS

The environmental context for learning/teaching; the range of learning environments in education; how people interact in different learning environments; the design of learning experiences for people in non-formal learning contexts.

Courses: ED37, ED50, ED51, ED52, ED54

Credit Points: 12

Contact Hours: 3 per week

■ CUB367 CLASSROOM AND BEHAVIOUR MANAGEMENT

Reviews and extends knowledge about managing learners to meet their needs in purposive and responsive learning environments. A reflective and research oriented evaluation of topics is encouraged, including managerial, environmental and educational conceptions of developing positive relations, teaching for motivation, and contemporary models, structures and frameworks for decision-making, relating to cooperative learning environments.

Courses: ED37, ED50, ED51, ED52, ED54

Credit Points: 12

Contact Hours: 3 per week

■ CUB368 PRACTICE TEACHING 1 (0-5 YEARS)

Twenty continuous days in a group care setting for infants and toddlers; observing recording and analysing the behaviour and learning of individual children and selected aspects of the teaching/caring learning environment; planning, implementing and evaluating learning opportunities for individuals and where appropriate, small groups, which foster communication, exploration and problem-solving and which take into account social and cultural contexts; adopting and promoting sound health and safety practice.

Course: ED53

Credit Points: 12

■ CUB369 PRACTICE TEACHING 2 (0-5 YEARS)

Twenty continuous days in a group care setting for children 3-5 years observing, recording and analysing the behaviour and learning of individuals and groups of children; recording and evaluating selected aspects of the teaching/caring/learning environment; planning, implementing and evaluating learning opportunities for individuals and groups which foster communication, exploration and problem-solving, creativity and self-expression and which take into account social and cultural backgrounds, and health and safety practices appropriate for 3-5 year old children in group care; assuming limited leadership responsibilities for the total program.

Course: ED53

Credit Points: 12

■ CUB370 PRACTICE TEACHING 3 (ALTERNATIVE SETTINGS)

Twenty continuous days in a selected service (early primary classroom, centre-based long day care, family day care, out-of-school hours care, occasional care, vocational care, work-related child care), observing, recording and analysing aspects of children's behaviour and learning and the teaching/caring/learning environment; planning, implementing and evaluating a comprehensive curriculum which takes into account a selected social, political and/or curriculum issue previously researched and relevant to the selected service; communicating with children, parents, colleagues and the wider community; utilising organisational and administrative skills in the assumption of responsibility for the total program for an extended period; recording and analysing operational details of the service, the interaction and interrelatedness of components of the service, its management and structure.

Course: ED53

Credit Points: 12

■ CUB371 SECONDARY PROFESSIONAL PRACTICE 1: CLASSROOM MANAGEMENT

This unit examines the role of the teacher with reference to the concepts of the teacher as communicator, planner, manager and facilitator of learning. It provides an opportunity for associated approaches, strategies and skills to be introduced and applied within the ambit of classroom management in practical settings.

Course: ED50

Credit Points: 12

Contact Hours: 3 per week

■ CUB372 SECONDARY PROFESSIONAL PRACTICE 2: CURRICULUM DECISION MAKING

State and federal initiatives in curriculum are examined to interpret curricula for the needs and capabilities of learners. The practice component provides opportunities to design, test and refine personal decision-making models, approaches, strategies and programs.

Course: ED50

Credit Points: 12

Contact Hours: 2 per week

■ CUB373 SECONDARY PROFESSIONAL PRACTICE 3: THE INCLUSIVE CURRICULUM

The unit addresses the social, political and material relations in differing classroom curriculum practices, with a view to examining both the constraining and enabling factors that impact on and generate possibilities within the conceptualising and operationalising of the inclusive curriculum. Critical analysis of classroom practices and possibilities is effected in the professional practice component.

Course: ED50

Credit Points: 12

Contact Hours: 2 per week

■ CUB374 SECONDARY PROFESSIONAL PRACTICE 4: THE BEGINNING TEACHER

Students synthesise the range of skills, attitudes and knowledge sources that they have experienced to ensure an effective transition into professional practice as beginning teachers, taking responsibility for the shaping of educational practice from their own perspective and those of the learners. Emphasis will be on planning and implementation of the total program.

Course: ED50

Credit Points: 12

■ CUB375 PRIMARY PROFESSIONAL PRACTICE 1: CLASSROOM MANAGEMENT

This unit provides an introduction to professional practice in education and gives a foundation for further development in the areas of specialisation and/or specific subject curriculum areas. The role of the teacher is examined with reference to the teacher as communicator,

planner, manager and facilitator of learning. It provides an opportunity for approaches, strategies and skills associated with the teacher's role to be introduced and applied with classroom management.

Course: ED51

Credit Points: 12 Contact Hours: 3 per week

■ **CUB376 PRIMARY PROFESSIONAL PRACTICE 2: CURRICULUM DECISION MAKING**

Examination of aspects of curriculum decision making to acquire the knowledge, skills and processes necessary for short-term and long-range planning. Curriculum development, curriculum implementation and curriculum evaluation are investigated to refine daily, weekly and term programs. Particular attention is given to cooperative teaching of an integrated unit of work.

Course: ED51

Prerequisite: CUB376

Credit Points: 12 Contact Hours: 2 per week

■ **CUB377 PRIMARY PROFESSIONAL PRACTICE 3: THE INCLUSIVE CURRICULUM**

This unit is designed to address the social, political and material relations that exist in differing classroom curriculum practices, examining both the constraining and enabling factors that impact on and generate possibilities within the conceptualising and operationalising of the inclusive curriculum. This will be done with the support of practising teachers, and critical self-analysis of classroom practices and possibilities.

Course: ED51

Prerequisite: CUB376

Credit Points: 12 Contact Hours: 12 per week

■ **CUB378 PRIMARY PROFESSIONAL PRACTICE 4: REFLECTIVE PRACTICE**

Prior to graduation, students need to synthesise the range of skills, attitudes and knowledge sources that they have experienced through the course, to ensure an effective transition into professional practice. This unit attempts to pursue this goal through further developing teachers as reflective practitioners, taking responsibility for the shaping of educational practice from their own perspective.

Course: ED51

Prerequisite: CUB377

Credit Points: 12 Contact Hours: 1 per week

■ **CUB379 EARLY CHILDHOOD PROFESSIONAL PRACTICE 1**

Understanding socio-historical and contemporary contexts for young children in a range of settings for early childhood education and care; observing children and the planning cycle; the use of play, exploration, communication and problem solving by children from birth to eight years; ten days of supervised practice in kindergarten or preschool.

Course: ED52

Credit Points: 12 Contact Hours: 2.5 per week

■ **CUB380 EARLY CHILDHOOD PROFESSIONAL PRACTICE 2**

Development of planning and teaching strategies, with particular focus upon children aged three to eight years; planning from observations; discourse practices and classroom management; working in groups; policies, syllabi and resources in curriculum generation and provision; handwriting; ten days of supervised practice in preschool or kindergarten, and fifteen days in lower primary classrooms.

Course: ED52

Credit Points: 12 Contact Hours: 2.5 per week

■ **CUB381 EARLY CHILDHOOD PROFESSIONAL PRACTICE 3**

Focus upon programs in child care and family care services; management of problems arising between children

in a range of EC settings; classroom management practices; record-keeping, reporting to and relationships with parents and professional colleagues; fifteen days of supervised practice in child care centres, and ten days of supervised practice in an ECE setting of the student's choice.

Course: ED52

Credit Points: 12 Contact Hours: 2.5 per week

■ **CUB382 EARLY CHILDHOOD PROFESSIONAL PRACTICE 4**

Refining strategies for teaching and working collaboratively with children, parents and colleagues in EC contexts; student reflection on development of own practices; roles of EC educators with regard to ethics, advocacy for young children, policy development and administration; curriculum vitae and resume; twenty days of supervised practice in an EC setting of the student's choice.

Course: ED52

Credit Points: 12 Contact Hours: 2.5 per week

■ **CUB410 TEACHERS & THE CURRICULUM**

Development of concepts and strategies essential to the processes of school-based curriculum development and the design, implementation and evaluation of relevant school programs; the significance of curriculum in the broader sense to a spectrum of individual professional teaching perspectives.

Courses: ED26, ED63

Credit Points: 12 Contact Hours: 3 per week

■ **CUB414 ADULT EDUCATION**

The design and implementation of educational programs for adults; theories relating to adults as educational participants; the educational process and the environment in which it takes place; emphasis on the provision of effective adult education.

Course: ED26

Credit Points: 12 Contact Hours: 3 per week

■ **CUB431 CLASSROOM MANAGEMENT: MODELS & PRACTICE**

Practical and research-based approaches to classroom management and discipline for teachers. Includes techniques that motivate pupils in daily teaching, rule development, teaching for responsibility, dealing with parents and communication and settings for on-task behaviour and meeting student needs.

Courses: ED26, ED64

Credit Points: 12 Contact Hours: 3 per week

■ **CUB432 TEACHERS & ISOLATED LEARNERS**

The isolated community; the isolated learner; consideration of various types of teaching situations in rural schools, especially small schools and distance education; teaching strategies; support services.

Course: ED26, ED50, ED51, ED54, ED52

Credit Points: 12 Contact Hours: 3 per week

■ **CUB433 TEACHING STRATEGIES**

Evaluation of the student's teaching strategies; the literature on teaching strategies; critical evaluation of strategies/models of teaching available.

Courses: ED26, ED50, ED51, ED52, ED54, ED64

Credit Points: 12 Contact Hours: 3 per week

■ **CUB435 FACILITATING PROFESSIONAL DEVELOPMENT & INSTITUTIONAL CHANGE**

Professional development as a central factor in the facilitation of institutional change; authentic case studies used to examine collaborative supervision and facilitative leadership within the context of change with the goal of developing quality institutions.

Courses: ED26, ED64

Credit Points: 12

Contact Hours: 3 per week

■ **CUB442 INTRODUCTION TO EDUCATIONAL ADMINISTRATION**

Introduction to educational administration with particular reference to the theory and practice of work roles, motivation, leadership, decision making, change, conflict, needs assessment and presentation of written reports for various educational settings.

Courses: ED26, ED50, ED51, ED52, ED54

Credit Points: 12

Contact Hours: 3 per week

■ **CUB443 CLASSROOM ASSESSMENT PRACTICES**

Examination of the nature and purposes of classroom assessment; analysis of main approaches to assessing student progress; developments in assessment practices in Queensland with particular reference to the ROSBA and Viviani reports; improving teacher-made tests; advantages and disadvantages of a wide range of test instruments used in classrooms.

Courses: ED26, ED50, ED51, ED52, ED54, ED64

Credit Points: 12

Contact Hours: 3 per week

■ **CUB444 EDUCATORS & THE LAW**

Legal literacy; sources of education law; students and rights; students' law and schools; parents' law and education; educators rights and obligations; educators' and school-based accidents; educational malpractice; educational administration and law.

Courses: ED23, ED26, ED63

Credit Points: 12

Contact Hours: 3 per week

■ **CUB445 PROGRESSIVE STRATEGIES FOR GENERAL & VOCATIONAL EDUCATION**

The interface between general and vocational education is an issue faced by teachers in all educational systems as schools adopt and present programs in areas which were formerly the domain of TAFE. Familiarity with developments such as the competencies movement and competency based assessment, National Training Reform Agenda and National Standards Frameworks, RPL and RCC, inference from direct and indirect evidence, greater accountability in their decision-making actions and a futures perspective are but a few of the recent educational developments impinging on the profession of teaching. This unit promotes understanding and strategies which enable students to plan, implement and assess work programs in a manner consistent with contemporary educational thought.

Course: ED50

Credit Points: 12

Contact Hours: 3 per week

■ **CUB446 ADVANCED SKILLS OF EFFECTIVE LEARNING & TEACHING**

The Queensland Education Department's corporate plan focuses on teachers having skills and attitudes to teach in a socially just framework and to facilitate effective learning and teaching. This unit develops understandings of the Principles for Effective Learning and Teaching and develops strategies which facilitate socially just teaching which is consonant with such principles and, at the same time, encourage lifelong teacher learning.

Course: ED50

Credit Points: 12

Contact Hours: 3 per week

■ **CUB447 GETTING IT ALL TOGETHER: TEACHERS' PROFESSIONAL WORK IN THE DIFFERING CONTEXTS OF THE PRIMARY CLASSROOM**

This unit is designed to address the multidimensional, diverse and complex nature of teachers' professional work in the primary classroom with a view to developing in graduating teachers an holistic, comprehensive and critical approach to the curriculum dilemmas that

permeate their work.

Course: ED51

Credit Points: 12

Contact Hours: 3 per week

■ **CUN601 CURRICULUM INVESTIGATIONS**

This unit is set within the context of trends, policies and practices which impact upon the decisions made by educators as curriculum practitioners. Curriculum inquiry and research are addressed with an appreciation of how curriculum trends, policies and practices have been framed and investigated in the past; how contemporary researchers and writers conceptualise curriculum as a field of inquiry and how curriculum practitioners are central in theorising about and transforming their own professional practice as curriculum leaders.

Courses: ED13, ED11

Credit Points: 12

■ **CUN602 PROFESSIONAL GROWTH & DEVELOPMENT**

This unit is designed for those practitioners who are interested in initiating and responding to curriculum change as both individuals and in collaboration with others. It assumes that curriculum leaders at different levels are required to be both proactive and reactive towards such change and this unit seeks to develop understandings which enable them to do this. This unit cultivated uniqueness and virtuosity, is guided by individual judgments in their context and leads to individual understandings and awareness of professional development issues.

Courses: ED13, ED11

Credit Points: 12

■ **CUN603 LEADING CHANGE IN CONTEMPORARY PROFESSIONAL PRACTICE**

This unit considers a range of contemporary problems and issues in cultures and climates of incessant educational change which are impacting on the professional practice of educators. These circumstances underline the need for curriculum leadership in professional practice. Problem areas include: managing behaviour in a supportive school environment; promoting inclusion practices; interpreting and implementing educational policy, e.g. the Whiltshire report; mentoring the beginning teacher; managing stress; implementing effective learning and teaching principles; translating teacher competencies into practice; creating and transforming organisational cultures. The unit provides the opportunity for students to focus on particular professional problems and issues of interest to them and, within the context of relevant literature and the realities of their particular professional situation, develop a change plan for addressing these problems and issues which is transformative and action-oriented.

Courses: ED13, ED11

Credit Points: 12

■ **CUN605 ADULT AND WORKPLACE EDUCATION: PRINCIPLES AND PRACTICES**

The ethical basis, the contextual basis and the expert knowledge of adult and workplace education are explored through the themes of conceptualisation, teaching adults, change, flexible delivery, assessment and legal risk management. This will provide an extensive basis for further work, including research, in the area.

Courses: ED13, ED11

Credit Points: 12

■ **CUN609 ACHIEVING QUALITY IN EDUCATIONAL CONTEXTS**

The processes of education and training are associated with implementing and ensuring quality procedures and outcomes. A major contributing factor in seeking quality in education is related to the formulation and application of appropriate assessment and evaluation techniques. The unit is designed for educational and evalua-

tion activities for quality learning outcomes in a range of institutional, community and workplace contexts.

Course: ED13, ED11 **Credit Points:** 12

■ **CUP405 TEACHING STUDIES**

Strategies for expository teaching and enquiry-based learning; generic teaching skills; interactive classroom; basic language and text processing strategies; organisation of the learning environment; lesson and activity planning routines and models.

Course: ED37

Credit Points: 12 **Contact Hours:** 3 per week

■ **CUP406 TEACHING STUDIES**

Strategies for expository teaching and enquiry based learning; generic teaching skills; interactive classroom; basic language and text processing strategies, organisation of the learning environment; lesson and activity planning routines and models.

Course: ED37 (Part-time)

Credit Points: 12 **Contact Hours:** 3 per week

■ **CUP420 PROFESSIONAL & CURRICULUM STUDIES 1**

The theories and practices which make up the educational repertoire of a classroom teacher; development of a coherent conceptual understanding of teaching and managing learning, particularly as it applies to arts education and physical education.

Course: ED36

Credit Points: 12 **Contact Hours:** 3 per week

■ **CUP421 PROFESSIONAL & CURRICULUM STUDIES 2**

Investigation of the process of curriculum development, particularly in social environment, human relationships education, health studies and science in primary schools.

Course: ED36

Credit Points: 12 **Contact Hours:** 3 per week

■ **CUP503 CURRICULUM: LEARNERS WITH SPECIAL NEEDS**

Introduction to curriculum development and situational/self-analysis; innovative program approaches for learners with special needs; changing ourselves and our educational environments; evaluation of curriculum development; resource teacher support for school-based curriculum development, human relationships education and participation and equity; communication about improved programs.

Course: ED24

Credit Points: 12 **Contact Hours:** 3 per week

■ **EAB103 AUSTRALIAN FAMILIES & EARLY EDUCATION**

Family and community analysis, historical view, economic, political, social and cultural factors; issues affecting families in Australia today; employment patterns, ideology of family, effect of technological change, inequalities and social justice; personal approaches and critical reflection.

Course: ED42

Credit Points: 8

■ **EAB144 INTEGRATING THE EXCEPTIONAL CHILD IN EARLY CHILDHOOD**

Foundations for least restrictive early education; philosophical and policy issues; integrating early intervention; nature of exceptionalities; methods for meeting special needs; team work with support personnel; evaluation of individualised programs and teaching strategies; management of behaviour; family dynamics and parental needs.

Course: ED42, NS48

Credit Points: 8

■ **EAB300 EARLY CHILDHOOD ARTS 1**

Introductory principles, practices, philosophies and theo-

ries in the visual and performing arts as they relate to young children in various contexts: the arts as a way of knowing and expressing; creativity versus artistry; an overview of artistic development from birth to adolescence; the arts, culture, education and the young child. A main focus will be on the elements and concepts in the areas of the visual arts, music, drama, movement and dance with specific emphasis given to the visual arts: the development of the visual arts for children under five years of age and for school-aged children; assisting artistry with children under five years of age and with school-aged children.

Course: ED43, ED52

Credit Points: 12 **Contact Hours:** 3 per week

■ **EAB301 EARLY CHILDHOOD ARTS 2**

Application of principles, practices, philosophies and theories in the areas of music, drama, movement and dance, with specific examples provided for how these arts areas provide unique opportunities for knowing and understanding. Children's development and ways in which this development may be assisted are examined in the areas of music, dance, and drama across two age categories: under five years of age and school age. The integration of the arts in relation to the unique, shared elements and concepts across the various domains, and advocacy in the arts.

Course: ED43, ED52

Credit Points: 12 **Contact Hours:** 3 per week

■ **EAB303 EARLY CHILDHOOD FOUNDATIONS 2**

Review and analysis of current knowledge of the processes and features of language and cognitive development of children from birth to eight years of age; language acquisition and communication; interrelationships between language and thought; the knowledge base and cognitive processes; analysis of observational data on children's behaviour in the area of language and cognition and using such analysis to plan for children's needs, interests and abilities; links with other aspects of development.

Course: ED43, ED52

Credit Points: 12 **Contact Hours:** 3 per week

■ **EAB304 EARLY CHILDHOOD FOUNDATIONS 3**

Theories of social, emotional and creative development and their application; theoretical and empirical approaches to the study of creativity and self-expression from birth to eight years; the nature of creativity and its relationship to other areas of development; children's recognition and production of emotions; processes involved in the socialisation of emotions; sex differences and contextual influences on development; individuality, self-knowledge and the development of personal identity; socialisation in the context of relationships, in particular those within the family, the peer context and the classroom.

Course: ED43, ED52

Credit Points: 12 **Contact Hours:** 3 per week

■ **EAB305 EARLY CHILDHOOD LANGUAGE EDUCATION 1**

Theories of development and learning of language and literacy from early years through emergent literacy to fluency with the use of a variety of genres of written language; early literacy learning processes, and the teaching practices, strategies and resources to support these in preschools and primary schools; working with parents to enhance literacy learning in home, child care, kindergarten and other settings; planning based on observations in order to assist children in educational contexts.

Course: ED43, ED52

Credit Points: 12 Contact Hours: 3 per week

■ **EAB306 EARLY CHILDHOOD LANGUAGE EDUCATION 2**

Review of previous experiences in literacy education from practice and the earlier unit; observation and assessment of the literacy learning abilities of a child as a basis for the development of a profile for planning; reporting to parents; development of frameworks for and planning of integrated language and literacy education programs appropriate to a range of children and a variety of educational contexts; modification of programs for children with special needs; study of issues in literacy and literacy education in early childhood contexts for children from birth to eight years of age.

Course: ED52

Credit Points: 12 Contact Hours: 3 per week

■ **EAB307 EARLY CHILDHOOD MATHEMATICS EDUCATION**

Approaches to the teaching and learning of mathematical concepts are reviewed with a focus on the development of the child; the sequence of development from early mathematical understandings to the application of number within a problem-solving framework; applications of technology.

Course: ED43, ED52

Credit Points: 12 Contact Hours: 3 per week

■ **EAB308 EARLY CHILDHOOD SCIENCES, MATHEMATICS & TECHNOLOGY**

Overview of early childhood science, social studies and maths topics, concepts and processes; investigation of appropriate monitoring strategies; use of a variety of technologies; ways in which early childhood environments can be organised to support integrated, active, inquiry learning, with relevant resources from the immediate classroom, the outdoors, families and the local neighbourhood.

Course: ED52, ED53

Credit Points: 12 Contact Hours: 3 per week

■ **EAB309 INTEGRATED EARLY CHILDHOOD CURRICULUM 1**

Investigation of distinctive curriculum practices in use in Australian early childhood settings such as preschool/ kindergarten, child care centres and the first years of primary school; ideas informing practice; curriculum principles which emphasise the importance of children, parents, community and teachers working collaboratively; play as an integrating force in children's learning; teaching and learning occurring within responsive relationships where difference is valued; the nature of teachers' decision making and the knowledge bases teachers bring to their curriculum implementation work.

Course: ED52, ED43

Credit Points: 12 Contact Hours: 3 per week

■ **EAB310 INTEGRATED EARLY CHILDHOOD CURRICULUM 2**

Current practices in Australian early childhood settings, understood within philosophical and historical perspectives; examination of key ideas informing the holistic curriculum approaches of the field; theories and practices associated with play; the celebration of difference with particular attention given to practices which are responsive to the values and needs of Aboriginal and Torres Strait Islanders; personalised teaching and learning; in-depth study of the knowledge base of the early childhood teacher practitioner; critical analysis of approaches to designing curriculum for the expanding range of services for young children and families in Australia.

Course: ED43, ED52

Credit Points: 12 Contact Hours: 3 per week

■ **EAB311 ALTERNATIVE PROGRAMS IN EARLY CHILDHOOD**

The range of community programs which support the needs of children and families outside of mainstream early childhood settings (e.g. visits to community Aboriginal and Torres Strait Islander programs). A resource file of programs will be established by students to aid in future teaching, to help refer families to appropriate services, to build up a deepened awareness of models of parent-professional communication and to suggest alternative career paths in early childhood.

Course: ED52

Credit Points: 12 Contact Hours: 3 per week

■ **EAB312 CASE STUDIES IN EARLY CHILDHOOD & FAMILY LITERACY**

Introduction to case study methods, adult literacy and inter-generational and family literacy, including clients from English and non-English speaking backgrounds; planning and implementing an inter-generational literacy program with a client and young children; reporting and reflecting upon the program; contributing to ongoing research in family literacy.

Course: ED52

Credit Points: 12 Contact Hours: 3 per week

■ **EAB313 CHILDREN'S LITERATURE FOR EARLY CHILDHOOD SETTINGS**

A study of the significance of children's literature as it furnishes literacy and language programs: origins and patterns of stories both traditional and contemporary as they reflect society; critical evaluation of books published nationally and internationally; acquisition of skills of selection for use in early childhood settings; planning appropriate long term quality literature programs that include a wide range of genre and current issues.

Course: ED52

Credit Points: 12 Contact Hours: 3 per week

■ **EAB314 CHILDREN, TEACHERS & THE ENVIRONMENT**

The exploration of interactions between individuals and their environments; the development of 'whole school/ whole centre' policies and practices in environmental education in early childhood settings; consideration of ecologically sustainable development and social justice through education about, in and for the environment; a strong focus on teachers of young children exploring their own attitudes, values and actions regarding these goals. The unique perspectives of Aboriginals and Torres Strait Islanders with regard to environmental issues will be examined.

Course: ED52

Credit Points: 12 Contact Hours: 3 per week

■ **EAB315 CREATING CURRICULUM WITH YOUNG CHILDREN**

Students examine dilemmas arising when teachers plan to negotiate the curriculum with children and parents in child care, preschool/kindergarten and primary school settings. Critical analysis of strategies teachers use to create 'spaces' where children are able to construct knowledge in personally relevant ways.

Course: ED52

Credit Points: 12 Contact Hours: 3 per week

■ **EAB316 EARLY CHILDHOOD ART EDUCATION**

Historical and contemporary trends in art education; philosophy and practice in early childhood visual arts education; in-depth exploration of young children's artistic development and learning; assessment and evaluation of visual arts in early childhood; curating children's art exhibitions; public information about children's artistry; advocacy for improving options for young children in the visual arts.

Course: ED52
Credit Points: 12 Contact Hours: 3 per week

■ **EAB317 EARLY CHILDHOOD DRAMA IN EDUCATION**

The development of skills and understandings of drama in education; in-depth exploration of techniques and strategies to enhance young children's dramatic ways of knowing and learning; assessment and planning for drama across the early childhood curriculum.

Course: ED52
Credit Points: 12 Contact Hours: 3 per week

■ **EAB318 EARLY CHILDHOOD EDUCATION & FAMILY ISSUES IN AUSTRALIA**

Contemporary issues facing families such as changing employment patterns, changing family forms, ethnic and cultural diversity and new technologies; indepth analysis of contemporary issues as they impact on families and on early childhood education; strategies for responding to families and the key issues they face in the context of early childhood education.

Course: ED52
Credit Points: 12 Contact Hours: 3 per week

■ **EAB319 EARLY CHILDHOOD SOCIO-CULTURAL CONTEXTS**

Opportunity to investigate a broad range of issues currently affecting early childhood educators and their clients, with in-depth study of an issue selected from this broad range. Issues include work based child care and the effect on children, families and teachers; vacation care programs and before and after school programs and what this means for primary school children and teachers; early childhood educators as agents of social change; policy decisions made at state and federal levels which affect early childhood education; how changing patterns of work/employment have affected early childhood education; the low status of caregivers in society who are entrusted with children, 'our investment for the future'; the debate about whether child care is a tool for the liberation of women or the repression of other women; children, poverty and early childhood services; children, ethnicity and early childhood services.

Course: ED52
Credit Points: 12 Contact Hours: 3 per week

■ **EAB321 EARLY CHILDHOOD TRANSACTIONS 2**

Insights into Australian families and interpersonal processes extended from EAB320; diversity and commonality in family childrearing values and practices; the parental role in young children's development; dimensions of parenting behaviour; family-teacher roles; interpersonal skills in practical contexts with families; effective collaborative procedures and skills of listening, giving and receiving feedback, assertion, negotiation and group leadership.

Course: ED43, ED52
Credit Points: 12 Contact Hours: 3 per week

■ **EAB322 ETHICAL RESPONSIBILITIES IN EARLY CHILDHOOD**

In-depth examination of legal and ethical responsibilities of early childhood educators; historical overview of changing trends in legislation relating to children; current issues in children's rights, including welfare, human rights, child care; professional ethics and the responsibility of the early childhood educator to children, parents, the community, society, colleagues and the profession; advocacy for improved opportunities for young children; case studies of Australian issues in advocacy, ethics and the law.

Course: ED52
Credit Points: 12 Contact Hours: 3 per week

■ **EAB323 EVERYDAY FOOD & SCIENCE FOR YOUNG CHILDREN**

An overview of science topics, concepts and processes as experienced in everyday life, in the home and various early childhood educational settings; exploration of a food cycle approach to learning, with consideration of space, time, resources and teaching strategies; current early childhood policies and practices which affect the needs of children from birth to age eight years; staff health in relation to early childhood program delivery.

Course: ED52
Credit Points: 12 Contact Hours: 3 per week

■ **EAB324 INTEGRATING YOUNG CHILDREN WITH DISABILITIES INTO EARLY CHILDHOOD PROGRAMS**

The integrated approach to teaching children with disabilities through an effective and cooperative team approach of teachers, families and support personnel; philosophical and policy issues for the least restrictive early education for young children with disabilities; the range and nature of disabilities early childhood teachers may encounter in their practice; development, implementation and evaluation of individualised programs; teaching strategies for integration into regular programs; needs and concerns of families; the range of support services available to families and teachers.

Course: ED43, ED52, ED53
Credit Points: 12 Contact Hours: 3 per week

■ **EAB325 MANAGEMENT OF EARLY CHILDHOOD SERVICES**

General management theory and practice; organisational and leadership styles; management of various early childhood services; setting policies and planning for services; implementing day-to-day tasks and operations; managing and working with people; considering ethical issues and conduct; working outside early childhood services.

Course: ED43, ED52, ED53
Credit Points: 12 Contact Hours: 3 per week

■ **EAB326 MUSIC EDUCATION & YOUNG CHILDREN**

In-depth exploration of musical elements in relation to concept development in young children; application of specific techniques for guiding children's understanding, such as solfege, ostinato with Orff-type instruments, and listening with a musical focus; extension of personal musicianship and creativity; integration of music with other areas.

Course: ED52
Credit Points: 12 Contact Hours: 3 per week

■ **EAB327 PRACTICAL CHILD CARE ISSUES**

The practical day-to-day aspects of designing, communicating, implementing and evaluating developmentally appropriate programs for children from birth to eight years. It will focus on B-3 and 5-8 year old care programs.

Course: ED52
Credit Points: 12 Contact Hours: 3 per week

■ **EAB328 RESEARCH IN EARLY CHILDHOOD DEVELOPMENT**

Research design, methodology and analysis as applied to the study of young children's development. This elective is recommended for students considering enrolment in postgraduate research courses in Early Childhood. Longitudinal, cross-sectional and cross-sequential designs; experimental, quasi-experimental and naturalistic designs; hypothesis generation; ethical issues in conducting research with young children; measurement and sampling; introduction to descriptive and inferential statistics; report writing and organisation.

Course: ED52

Credit Points: 12

Contact Hours: 3 per week

■ **EAB329 ROUTINES FOR INCLUSIVE EARLY CHILDHOOD CURRICULUM**

The routines for daily living in kindergartens, preschools, child care centres and primary schools; the creation of routines which will foster inclusivity of difference based on race, gender, social class and intellectual capabilities; particular attention is given to contexts which are inclusive of Aboriginal and Torres Strait Islander values and beliefs. Investigations of practices currently in use in early childhood settings will form the basis for critical analysis of possibilities for improving practice.

Course: ED52

Credit Points: 12

Contact Hours: 3 per week

■ **EAB330 STORYTELLING IN EARLY CHILDHOOD**

The identification and exploration of the craft of the storyteller. In particular it will focus on a range of storytelling techniques, identification of suitable stories that can be told; cultural influences on storytelling and storytelling across the curriculum.

Course: ED52

Credit Points: 12

Contact Hours: 3 per week

■ **EAB331 TECHNOLOGY & THE YOUNG CHILD**

The use of computers, calculators and other examples of technology in the learning of young children; links between technology and problem-solving, applications of number concepts and the use of computers in language development and the publication of documents.

Course: ED52

Credit Points: 12

Contact Hours: 3 per week

■ **EAB332 TECHNOLOGY IN EARLY CHILDHOOD CONTEXTS**

Students undertake an investigation which incorporates the use of technology with young children. This investigation would be designed, carried out and reported on as in a small scale research project or an independent study.

Course: ED52

Credit Points: 12

Contact Hours: 3 per week

■ **EAB333 EARLY CHILDHOOD EDUCATION: COMMUNITY CONTEXT**

Education and change in a postmodern society; the implications for education of the complex and diverse nature of Australian society; the role of policy making in meeting the educational challenges of the 1990s.

Course: ED53

Credit Points: 12

■ **EAB334 EARLY CHILDHOOD FOUNDATIONS A**

The content of this unit provides the theoretical and applied knowledge basis for the selection and organisation of appropriate learning situations for young children in a range of early childhood contexts and settings.

Course: ED53

Credit Points: 12

Contact Hours: 3 per week

■ **EAB335 EARLY CHILDHOOD LANGUAGE AND ARTS EDUCATION 1**

This unit introduces students to the theory, issues and practices involved in planning to foster young linguistic and artistic development in a range of early childhood educational contexts.

Course: ED53

Credit Points: 12

Contact Hours: 3 per week

■ **EAB336 EARLY CHILDHOOD FOUNDATIONS B**

The context of this unit provides the theoretical and ap-

plied knowledge basis for the selection and organisation of appropriate learning situations in a range of educational contexts and settings, and for working with parents and other adults in a range of situations.

Course: ED53

Credit Points: 12

Contact Hours: 3 per week

■ **EAB337 INTEGRATED EARLY CHILDHOOD CURRICULUM**

Current practices in Australian early childhood settings, understood within philosophical and historical perspectives; examination of key ideas informing the holistic curriculum approaches of the field; theories and practices associated with play; the celebration of difference with particular attention given to practices which are responsive to the values and needs of Aboriginal and Torres Strait Islanders; personalised teaching and learning; in-depth study of the knowledge base of the early childhood teacher practitioner; critical analysis of approaches to designing curriculum for the expanding range of services for young children and families in Australia.

Course: ED53

Credit Points: 12

Contact Hours: 3 per week

■ **EAB338 EARLY CHILDHOOD LANGUAGE AND ARTS EDUCATION 2**

This unit extends students' understanding of the theory, issues and practices related to curriculum decision making to foster young children's linguistic and artistic development across a range of early childhood educational contexts.

Course: ED53

Credit Points: 12

Contact Hours: 3 per week

■ **EAB340 PROGRAMS FOR INFANTS AND TODDLERS**

Ideas and beliefs which underpin practices and theories in relation to children under three years of age; exploration of societal attitudes in relation to young children, historically and currently; foundations and functioning of programs for infants and toddlers; examination of Australian and overseas models; government regulations for under three's programs; changing attitudes and trends in relation to parental involvement in education.

Course: ED53

Credit Points: 12

Contact Hours: 3 per week

■ **EAB341 EARLY CHILDHOOD FOUNDATIONS 1**

Biological processes foundational to physical, perceptual and motor development of children from birth to eight years of age; prenatal factors; observational methods and techniques for analysing physical, perceptual and motor development of young children; knowledge of atypical development; provision of care and education for children with special needs; related social justice issues.

Course: ED52

Credit Points: 12

Contact Hours: 2.5 per week

■ **EAB342 EARLY CHILDHOOD FOUNDATIONS 2**

Processes and features of language and cognitive development of children from birth to eight years; language acquisition and communication; interrelationships between language and thought; the knowledge base and cognitive processes; analysis of observational data to plan for children's needs, interests and abilities; assisting children with special needs or developmental delay, especially in terms of intellectual abilities.

Course: ED52

Credit Points: 12

Contact Hours: 2.5 per week

■ **EAB343 EARLY CHILDHOOD FOUNDATIONS 3**

Theoretical and empirical approaches to the study of

creativity and self-expression from birth to eight years; children's recognition and production of emotions; sex differences and contextual influences; development of personal identity; socialisation relationships among the family members, the peer context and the classroom; social and emotional difficulties of children, including aggression and learned helplessness; appropriate interventions for management.

Course: ED52

Credit Points: 12 Contact Hours: 2.5 per week

■ **EAB344 EARLY CHILDHOOD FOUNDATIONS 4**

Synthesis of individual students' knowledge from the previous foundation units; development of skills in preparation and conduct of debates and case study reporting; children with special needs; social, personal, and professional issues in the provision of early childhood education and services.

Course: ED52, ED53

Credit Points: 12 Contact Hours: 2.5 per week

■ **EAB345 EARLY CHILDHOOD CURRICULUM: LANGUAGE EDUCATION**

Pertinent theories and research in language and literacy education for children in EC settings; development of specific teaching and interactive practices for working with children's development of literacy, and for teaching reading and writing; planning appropriate learning environments using a wide range of literary and other resources; introduction to English syllabus.

Course: ED52

Credit Points: 12 Contact Hours: 4 per week

■ **EAB346 EARLY CHILDHOOD CURRICULUM: SCIENCE, SOCIETY AND THE ENVIRONMENT**

Teacher's knowledge and understanding of science and its influences and applications; broad, multidisciplinary approaches to scientific, social and environmental issues in order to create just and sustainable futures; development of scientific knowledge and related social perspectives in programs for young children; practical activities arising from observations of children's interest and needs.

Course: ED52

Credit Points: 12 Contact Hours: 4 per week

■ **EAB347 EARLY CHILDHOOD CURRICULUM: EARLY MATHEMATICAL EXPLORATIONS**

Theories and understanding of children's conceptual development; application of active inquiry processes to further concept development in mathematics; foundational concepts in mathematics and the development of appropriate learning and teaching opportunities; use of language in children's concept of number; role and use of technology in processes for learning and understanding.

Course: ED52

Credit Points: 12 Contact Hours: 4 per week

■ **EAB348 EARLY CHILDHOOD CURRICULUM: ARTS**

Introductory principles, practices, philosophies and theories in the visual and performing arts as they relate to young children in various EC contexts; the arts as a way of knowing and expressing; creativity versus artistry; overview of artistic development from birth to adolescence; the arts, culture, education and the young child; elements and concepts in the visual arts, music, drama, movement and dance with specific emphasis on the visual arts; the development of the visual arts for children in EC settings; assisting artistry with children under five years of age and with school-aged children.

Course: ED52

Credit Points: 12 Contact Hours: 4 per week

■ **EAB349 ADVANCED EARLY CHILDHOOD CURRICULUM: ARTS**

Application of principles, practices, philosophies and theories in the areas of music, drama, movement and dance, with specific emphasis on how these arts provide unique opportunities for knowing and understanding; assisting children's development through music, dance and drama in preschool and primary school EC settings; integration of the arts in relation to unique and shared elements and concepts across various domains; advocacy in the arts.

Course: ED52

Credit Points: 12 Contact Hours: 4 per week

■ **EAB350 ADVANCED EARLY CHILDHOOD CURRICULUM: LITERACY AND NUMERACY IN THE EARLY YEARS**

Observation, assessment and diagnosis of the literacy and numeracy abilities of young children in ECE settings; planning, implementing and evaluating programs to foster optimal development in literacy and numeracy; addressing literacy and numeracy needs of all children equitably and justly; critical examination of teaching approaches and resources in literacy and numeracy education.

Course: ED52

Credit Points: 12 Contact Hours: 4 per week

■ **EAB351 FAMILY STUDIES AND EARLY CHILDHOOD EDUCATION**

Current social contexts and issues affecting families with young children, including employment patterns, unemployment, poverty, inequality and social justice, ideology of family, cultural diversity, particularly from the perspectives of Aboriginals and Torres Strait Islanders, and the influence of technology; reciprocal social and family influences.

Course: ED52

Credit Points: 12 per week

■ **EAB410 EARLY EDUCATION: DECIDING THE CURRICULUM**

Examination of the curriculum decision-making processes promoted and in use among teachers working in early childhood settings such as kindergartens, child care and schools. Students have an opportunity to reflect on, and seek to improve, personal ability to decide the curriculum for young learners.

Course: ED26

Credit Points: 12 Contact Hours: 3 per week

■ **EAB411 EARLY EDUCATION: LITERACY**

A study of current understandings about the nature of literacy, literacy development in early childhood and the ways in which this development can be fostered both within the home and at a range of educational and care settings. The broad topic areas addressed comprise language foundations, processes and patterns of development, the classroom context and program development. Students are expected to build on their preservice studies in the area of language and literacy development and learning.

Course: ED26

Credit Points: 12 Contact Hours: 3 per week

■ **EAB412 INTEGRATIVE EARLY CHILDHOOD CURRICULUM**

Examination of key ideas informing holistic curriculum approaches; theories and practices associated with play in the curriculum in all EC settings, and particularly the lower primary school; implications of implementing an inclusive curriculum; issues of equity and social justice reviewed in relation to the transacting the curriculum in

EC settings; critical analysis of approaches to designing curriculum for the expanding range of services for young children and families in Australia.

Course: ED52

Credit Points: 12 Contact Hours: 4 per week

■ **EAB413 MANAGEMENT OF EARLY CHILDHOOD SERVICES**

General management theory and practice; organisational and leadership styles; management of various EC services; setting policies and planning for services; implementing day-to-day tasks and operations; managing and working with people; collective and collaborative approaches to management; teamwork and decision-making; ethical issues and conduct; advocacy of EC services for young children from all cultural and social contexts.

Course: ED52

Credit Points: 12

■ **EAB414 RESEARCH IN EARLY CHILDHOOD DEVELOPMENT AND EDUCATION**

Research design and methodology; qualitative and quantitative research; ethical issues in the conduct of the research process with young children and the adults involved with them; awareness and understanding of the research process from development of proposal, through conduct of some aspects of data collection and analysis to writing parts of the thesis. Introduction to and involvement in processes of self-evaluation. Students will be involved with a practising researcher who will act as mentor.

Course: ED52

Credit Points: 12 Contact Hours: 4 per week

■ **EAB415 RESOURCE/SUPPORT PROGRAMS IN EARLY CHILDHOOD**

Community programs which support children and families outside the mainstream EC settings; visits to programs such as those for Aboriginals and Torres Strait Islanders, as well as for children and families of other cultures; awareness of effects of cultural diversity, geographical isolation, etc.; establishing resource files for teaching and referral; models of parent-professional communication; evaluation of community programs; careers in EC services and education.

Course: ED52

Credit Points: 12 Contact Hours: 4 per week

■ **EAB416 EARLY CHILDHOOD ART EDUCATION**

Historical and contemporary trends in art education; philosophy and practice in early childhood visual arts education; in-depth exploration of young children's artistic development and learning; assessment and evaluation of visual arts in early childhood; methods of reporting and record-keeping; studio art experiences; curating children's art exhibitions; public information about children's artistry; advocacy for improving options for young children in the visual arts.

Course: ED52

Credit Points: 12 Contact Hours: 4 per week

■ **EAB417 CREATING CURRICULUM WITH YOUNG CHILDREN**

Examining the dilemmas arising when teachers negotiate the curriculum with children and parents in shared curriculum creation in child care, preschool, kindergarten and primary school settings; critical analysis of strategies early childhood educators use to create spaces where children construct knowledge in personally relevant ways; consideration of factors which promote children's involvement in creating the curriculum.

Course: ED52

Credit Points: 12 Contact Hours: 4 per week

■ **EAB418 STUDIES IN NARRATIVE FOR YOUNG CHILDREN**

Critical analysis of central themes and issues relevant to the range and uses of narrative with young children; selection and evaluation of stories and narratives (spoken and in print) for use in a multicultural society; desirable qualities in narrative resources and materials; storytelling and story-reading techniques; narrative as a means of reflecting on human issues for the individual and for society; use of narrative in EC programs generally and for linking curriculum areas.

Course: ED52

Credit Points: 12 Contact Hours: 4 per week

■ **EAB419 MUSIC EDUCATION FOR DIVERSE LEARNERS**

This unit provides advanced exposure to music education and explores ways in which music programs for young children can be established on experiential, self-chosen and guided bases. Students will acquire a understanding of musical concepts and elements to enable them to interact with, and make decisions about, sound and to apply specific teaching strategies and techniques to guide children's conceptual understanding, knowledge, skills and socio-cultural awareness of music.

Course: ED52

Credit Points: 12 Contact Hours: 4 per week

■ **EAB420 CHILDREN, TEACHERS AND THE ENVIRONMENT**

Teachers' positions in relation to community concerns on socio-environmental issues; socially just and ecologically sustainable programs; environmental education; exploring a range of environmental issues and dilemmas.

Course: ED52

Credit Points: 12 Contact Hours: 4 per week

■ **EAB421 EVERYDAY FOOD LEARNING**

Exploring a food cycle approach to learning; consideration of space, time, resources and teaching strategies; current EC policies and practices affecting the food and health of children from birth to eight years of age; staff health in relation to early childhood program delivery.

Course: ED52

Credit Points: 12 Contact Hours: 4 per week

■ **EAB422 TECHNOLOGY AND THE YOUNG CHILD**

Selection, use and critical evaluation of computers and associated software, and related technologies in EC programs, linking technology and problem-solving; applications and use of computers and associated software for language, number and problem-solving; creating teaching materials.

Course: ED52

Credit Points: 12 Contact Hours: 4 per week

■ **EAB440 WORKING WITH PARENTS & THE COMMUNITY**

Parental roles in childhood; review of research on child rearing; the use of interpersonal skills in relating to parents; planning for parent involvement; parent involvement approaches; resources for parents; meeting the needs of parents and programs; future trends.

Courses: ED23, ED26

Credit Points: 12 Contact Hours: 3 per week

■ **EAB441 EARLY EDUCATION DEVELOPMENT & LEARNING**

Ecological orientation of child development; forces shaping the development of children from birth to eight years of age; the psychosocial and cultural perspectives of development and learning in the early childhood years; ecological analysis of early childhood settings impacting on development.

Course: ED26
Credit Points: 12 Contact Hours: 3 per week

■ **EAB501 ADVANCED CHILD CARE DEVELOPMENT & LEARNING**

Theoretical perspectives on development and learning of children 0-12 years; investigation of aspects of development, developmental sequences and patterns; factors influencing development and learning; observation measurement and research methods in development and learning.

Course: ED42 Credit Points: 16

■ **EAB502 ADVANCED CURRICULUM THEORY & DESIGN FOR CHILD CARE**

Frameworks for curriculum decision making; establishing curriculum policies and evaluation strategies; characteristics of learning environments which foster communicative competence, creativity and problem solving; levels of decision-making, federal and state governments, employing authorities, particular child care and education services.

Course: ED42 Credit Points: 16

■ **EAB503 TEACHING STRATEGIES FOR CHILD CARE**

The planning-implementing-evaluating cycle; managing learning environments; the teaching/caring role; facilitating children's development and learning through the human environment; dimensions of curriculum decision-making; adult-adult and adult-child interactions; teacher as a professional.

Course: ED42 Credit Points: 16

■ **EAB504 PROGRAMS & TEACHING STRATEGIES FOR CHILDREN UNDER 3 YEARS**

Facilitating children's development and learning through the physical environment; mathematics and science concepts in the learning environment; physical care, education and nutrition for infants and toddlers; creating a safe, stimulating and supportive environment for learning; day care programs for infants and toddlers in Australia and overseas; parent-infant programs; policies and trends.

Course: ED42 Credit Points: 16

■ **EAB505 LEARNING TEACHING & INTEGRATED CURRICULUM FOR 3-5 YEARS**

Language and cognitive development; communication with children; early mathematics and science concepts; total program planning implementation and evaluation; integration across content areas involving parents and community.

Course: ED42 Credit Points: 16

■ **EAB506 FIELD PROJECT (CHILDREN 0-5 YEARS)**

Observations, analysis and implementation of the teaching and management program; teaching file of recorded observations, summaries, records, organisation strategies and evaluated plans; provision of a safe, caring and challenging learning environment; competency in leadership and responsibility.

Course: ED42 Credit Points: 16

■ **EAB507 EARLY CHILDHOOD LEADERSHIP & MANAGEMENT IN THE SOCIO-CULTURAL CONTEXT**

Administration of early childhood services; leadership styles; managing people; professional issues; selection of personnel; outcomes for children and families; management theory and practice; program administration; financial matters; features of comprehensive programs, planning and communication.

Course: ED42 Credit Points: 16

■ **EAB508 FIELD PROJECT (CHILDREN 0-12 YEARS)**

A significant social, political or curriculum issue affecting the delivery of a child care and education service; teaching file of recorded observations, summaries, relevant centre records, management and teaching strategies, community resources, parent and staff communications, evaluated plans; competence in providing a safe caring learning environment which reflects the cultural and social backgrounds of the children; competence in leadership and responsibility for the total program for a period of time.

Course: ED42 Credit Points: 16

■ **EAN601 EARLY CHILDHOOD TEACHERS' KNOWLEDGE IN ACTION**

Critical reflection on knowledge in action as teachers work in early childhood programs; history of the development of key ideas influencing early childhood curriculum and teaching; methods for studying teachers at work in different early childhood programs; analysis of research which examines issues related to teaching in early childhood programs.

Courses: ED13, ED11 Credit Points: 12

■ **EAN602 EARLY CHILDHOOD SERVICES AND POLICIES**

Examination is made of the processes of policy development and sources of influence on policies in the area of early childhood services. Critical analyses are undertaken of selected early childhood policies.

Courses: ED13, ED11 Credit Points: 12

■ **EAN603 DEVELOPMENT IN EARLY CHILDHOOD CONTEXTS**

Development of skills for critical evaluation of current developmental issues in early childhood within an ecological framework; knowledge of a broad range of developmental and methodological issues of research in early childhood including infant development, family, educational and care contexts; the processes and patterns of symbolic development in young children; critical discussion of developmental research and the implications of this knowledge for early childhood education.

Courses: ED13, ED11 Credit Points: 12

■ **EAN604 YOUNG CHILDREN, FAMILIES AND COMMUNITY**

Aspects of family diversity; the interactions between young children, families and the wider social and cultural community; key issues facing families within community contexts; the analysis of transactions involving professionals, young children, families and community.

Courses: ED13, ED11 Credit Points: 12

■ **EAN605 EDUCATION MANAGEMENT PROCESSES AND STRATEGIES**

The management processes in educational and other professional settings; the identification of various leadership skills and effective communication styles. The understanding and facilitation of change are explored. Consulting, advocacy and empowerment strategies are identified in terms of the students' particular work sites.

Courses: ED13, ED11 Credit Points: 12

■ **EAN606 MANAGING EDUCATION PERSONNEL**

Human resource management; staff selection, staff supervision and appraisal, staff development and the importance of developing evaluation and facilitation skills. Strategies for including professional development in a range of educational and professional settings are explored.

Courses: ED13, ED11 Credit Points: 12

■ **EAN607 CONSULTATION AND TEAMWORK**
 Analysis of typical professional consultancy and team-work contexts within education and early childhood services, including contributions from other disciplines (e.g. medicine, psychology, therapies, social welfare, law) and agencies (e.g. health, community services, police); theoretical and practical understanding of intra- and inter-personal qualities which affect consultancy and team-work; theory and application of group development processes related to effective task accomplishment. Factors impinging on the quality of interdisciplinary and interagency teamwork; strategies for reviewing and improving consultation and teamwork.
 Courses: ED13, ED11 **Credit Points:** 12

■ **EAP411 CREATIVITY & LANGUAGE 1**
 Developmental processes in the expressive and language arts; principles of learning; the development of personal identity in young children; creative and expressive processes for language and literacy in early childhood programs.
 Course: ED35
Credit Points: 12 **Contact Hours:** 4 per week

■ **EAP412 THINKING & PROBLEM SOLVING 1**
 The processes of interest in active learning, inquiry and problem solving; environments and strategies which promote the development of active learning and inquiry by young children; monitoring progress.
 Course: ED35
Credit Points: 12 **Contact Hours:** 4 per week

■ **EAP413 PROGRAM PLANNING & TEACHING STRATEGIES 1**
 Development of those areas of knowledge and skills essential to the practical decision-making of early childhood teachers. An off-campus component of this unit includes two practicums, each of twelve days, in two early childhood settings (child care, preschool, kindergarten or early primary).
 Course: ED35
Credit Points: 12 **Contact Hours:** 3 per week

■ **EAP416 CREATIVITY & LANGUAGE 2**
 Discipline-based processes; the interrelated and unique contribution of each of the arts; the teacher's role as a curriculum decision-maker in the development of language and literacy programs.
 Course: ED35
Credit Points: 12 **Contact Hours:** 4 per week

■ **EAP417 THINKING & PROBLEM SOLVING 2**
 The child as explorer, problem solver and meaning maker; organising for active learning, inquiry and problem solving; linking home and early childhood educational environments.
 Course: ED35
Credit Points: 12 **Contact Hours:** 4 per week

■ **EAP418 PROGRAM PLANNING & TEACHING STRATEGIES 2**
 The development and integration of student teachers' knowledge, skills and attitudes from the curriculum development and socio-cultural units to assist them in performing and justifying their diverse roles in teaching practice. An off-campus component of this unit includes two practicums each of sixteen days in two early childhood settings (child care, preschool, kindergarten or early primary).
 Course: ED35
Credit Points: 12 **Contact Hours:** 3 per week

■ **EAP500 EARLY CHILDHOOD LEADERSHIP & ADVOCACY**
 The foundations of early childhood services in Australia; the principles of leadership, empowerment plus change

are considered along with advocacy for the early childhood field.
 Courses: ED23, ED61
Credit Points: 12 **Contact Hours:** 3 per week

■ **EAP512 POLICIES & PRACTICES IN EDUCATIONAL MANAGEMENT**
 Explores the nature of educational policies in Australia; analyses policies to consider social and political influences; addresses educational practices in relation to current policies at various government and organisational levels.
 Courses: ED23, ED61
Credit Points: 12 **Contact Hours:** 3 per week

■ **EAP513 EDUCATIONAL SERVICES MANAGEMENT**
 Focuses on leadership roles by identifying various leadership skills and effective communication styles; development of an understanding and facilitation of change; consulting, advocacy and empowerment strategies are identified.
 Courses: ED23, ED61
Credit Points: 12 **Contact Hours:** 3 per week

■ **EAP515 HUMAN RESOURCE MANAGEMENT IN EDUCATION**
 Staff supervision and appraisal; staff development planning, implementation and evaluation; facilitative skills.
 Courses: ED23, ED61
Credit Points: 12 **Contact Hours:** 3 per week

■ **EAP518 MANAGING THE CURRICULUM**
 This unit helps students understand the elements of curriculum management. The problematic nature of managing curriculum is explored by considering ideological approaches.
 Course: ED23, ED26 **Credit Points:** 12

■ **EAP525 EARLY CHILDHOOD PROGRAM PLANNING**
 Planning and evaluating early childhood programs for children 3-8 years; organisation and administration of programs for young children; examination of approaches to teaching; early intervention programs; interdisciplinary teamwork and support services; strategies for working with parents and community agencies; professional behaviour and ethics.
 Course: ED20 **Credit Points:** 12

■ **EAP526 EARLY CHILDHOOD EDUCATION 3**
 Current approaches to the teaching of literacy and numeracy in the early years; diagnosis and assessment in early literacy and numeracy; the expressive arts and the sciences as modes of learning and teaching in the early years; the use of microcomputers and educational software with young children; planning and teaching for individual and group needs.
 Course: ED20 **Credit Points:** 12

■ **EAP528 CHANGE IN CHILDREN BIRTH TO AGE EIGHT**
 Techniques for observing and analysing child behaviour; major theories of development and learning; cognitive, social/emotional, language, physical development and learning in children 2-9 years.
 Course: ED20 **Credit Points:** 12

■ **EAP529 EARLY CHILDHOOD EDUCATION 1 & 2**
 The development of problem solving, explanation, investigation, self-expression, originality, divergent thinking and risk-taking in young children in relation to communication, movement, the expressive arts, mathematics, science, social studies and health curriculum; approaches and suitable materials for these curriculum ar-

eas within various early childhood settings; analysis of teaching strategies.

Course: ED20

Credit Points: 12

■ **EAP530 THE CONTEXT OF EARLY CHILDHOOD EDUCATION**

Examination of the bases and scope of education in early childhood, the role of psychological theories, curriculum models, policies and programs; case studies of early childhood programs.

Course: ED20

Credit Points: 12

■ **EAP531 RESEARCH IN EARLY CHILDHOOD**

Examination of the research literature in development and learning; research techniques in early childhood; and their application; application of research techniques to research proposals; experimental research in one aspect of development and learning of children aged 3-8 years; contributions to early childhood research from other fields.

Course: ED20

Prerequisite: EAP528

Credit Points: 12

■ **EAP532 TRANSACTIONS IN EARLY CHILDHOOD EDUCATION**

Examination of the implications of social, cultural and geographical factors for early childhood education; consideration of the effects of technology and media, and ethical and legal obligations; analysis of procedures and techniques for case studies; formulating a personal philosophical statement.

Course: ED20

Prerequisite: EAP530

Credit Points: 12

■ **EAP551 DANCE EDUCATION IN EARLY CHILDHOOD**

The study of movement and dance in early childhood, the influence of home and culture, the awareness of space, time, energy and body performance in the movement and dance curriculum; the approaches underpinning philosophical and professional practice.

Courses: ED26

Credit Points: 12

Contact Hours: 3 per week

■ **EAP552 FROM PLAY TO DRAMA IN EARLY CHILDHOOD EDUCATION**

The developmental relationship that exists between children's play and drama in early childhood, children's language development through drama; theories/approaches and methods in drama contexts.

Courses: ED26

Credit Points: 12

Contact Hours: 3 per week

■ **EAP553 MUSIC IN EARLY CHILDHOOD EDUCATION**

Examination of the influence of home, formal learning contexts, society and culture on music education for young children; children's development and learning through music; musical elements, approaches/methods and learning contexts.

Courses: ED26

Credit Points: 12

Contact Hours: 3 per week

■ **EAP554 THE ARTISTIC PROCESS & THE VISUAL ARTS IN EARLY CHILDHOOD EDUCATION**

The value of the visual arts for culture, and for children; education versus educated, children's development and learning through the visual arts; visual arts media and curricula, philosophical and historical underpinnings.

Courses: ED26

Credit Points: 12

Contact Hours: 3 per week

■ **EDB336 ABORIGINAL & TORRES STRAIT ISLANDERS, PAST & PRESENT**

This introductory unit is designed to give students a basic understanding and awareness of Murri and Torres

Strait Islander cultures. Throughout the unit, students will be provided with a holistic approach to learning about the main features of both traditional and contemporary cultures. This knowledge would enhance and assist the individual's ability to develop effective relationships with the Murri and Torres Strait Islander communities.

Course: ED51

Credit Points: 12

Contact Hours: 3 per week

■ **EDB337 ISSUES IN ABORIGINAL & TORRES STRAIT ISLANDER CULTURE**

This unit continues to develop students' knowledge about Murri and Torres Strait Islander people, historically, socially and culturally in relation to these changes and gives them the opportunity to explore and investigate areas of interest.

Course: ED51

Credit Points: 12

Contact Hours: 3 per week

■ **EDB338 MURRI & TORRES STRAIT ISLANDER STUDIES: AN INTEGRATED PERSPECTIVE**

Intended for students who already have a solid grounding in Aboriginal and Torres Strait Islander history and culture and who have an understanding of the issues that concern Murri and Torres Strait Islander people today. Students have the opportunity to develop a deeper understanding of the complexities of the cultures of these two distinct groups and to examine and evaluate issues of concern relevant to their areas of interest.

Course: ED51

Credit Points: 12

Contact Hours: 3 per week

■ **EDB440 INDEPENDENT STUDY**

Self-initiated and self-directed academic study in an area of educational management interest which allows study either to a depth not possible in electives, or in an area not covered by the course; for requirements see the Independent Study Guide.

Courses: ED23, ED26, ED50, ED51, ED52, ED54, ED37

Credit Points: 12

■ **EDB442 INTEGRATED PROFESSIONAL SEMINARS**

The unit is designed to operate in conjunction with the training provided to educational advisors by the Queensland Department of Education. Students compile a portfolio based on a survey of professional development literature and an inservice activity which they design and implement with classroom teachers. A report is compiled in which students describe their work and reflect on its effectiveness.

Course: ED26

Credit Points: 12

■ **EDN602 ADVANCED SEMINARS**

This unit provides for the special needs and interests of students. Small groups of students interact at an advanced level with specialists or visiting scholars in seminars, conferences and research projects.

Courses: ED13, ED11

Credit Points: 12

■ **EDN603 INDEPENDENT STUDY**

This unit allows individual students to follow their own particular needs/interests and/or to take advantage of specialised lecturer expertise through working autonomously on relevant topics of interest under the supervision of individual lecturers.

Courses: ED13, ED11

Credit Points: 12

■ **EDN608 PROJECT/DISSERTATION (STAGES 1 AND 2)**

A minor research project that provides students with an opportunity to extend, synthesise and analyse knowledge from core and elective units through, for example, a criti-

cal literature review, the development of appropriate educational resources, or a project of change in their workplace.

Courses: ED13, ED14 **Prerequisite:** EDN611
Credit Points: 24

■ **EDN611 UNDERSTANDING EDUCATIONAL RESEARCH**

The foundation unit for studying research methods in education. It focuses on reading, understanding and evaluating educational research both within and across different paradigms used in educational research.

Courses: ED13, ED11, ED61
Credit Points: 12 **Contact Hours:**

■ **EDN612 CONDUCTING EDUCATIONAL RESEARCH**

Building on the understandings developed in EDN611, this unit focuses on developing the skills and knowledge necessary to design and conduct educational research. Structured to enable students to pursue in-depth studies in selected designs and methods with a view to producing an initial research proposal.

Courses: ED13, ED11, ED12, ED61
Prerequisites: EDN611 OR equivalent OR permission of Coordinator
Credit Points: 12

■ **EDN620 DISSERTATION**

Designed to enable students to develop their research potential through following up a research design developed in the unit Advanced Research, to produce a significant piece of written research in the form of a dissertation.

Courses: ED13 **Prerequisite:** EDN611
Credit Points: 36

■ **EDP508 PRACTICUM IN EARLY CHILDHOOD 1**

Observation; planning, implementation and evaluation of curriculum for children in early childhood; communication with children, parents and colleagues; the demonstration of organisational and administrative skills in an early childhood setting.

Course: ED20 **Credit Points:** 6

■ **EDP509 PRACTICUM IN EARLY CHILDHOOD 2**

Observation; design, implementation and evaluation of programs for children in the early childhood age range; communication with children, parents and colleagues; increased responsibility for control and management in the early childhood setting; catering for children in the early childhood age range.

Course: ED20 **Prerequisite:** EDP508
Credit Points: 6

■ **EDP514 FIELD PROJECT**

An applied action research project focusing on the development of a management-oriented program; the delivery and evaluation of the program within an existing educational service.

Courses: ED23, ED61
Credit Points: 12
Incompatible with: EDP516

■ **EDP516 EXTENDED FIELD PROJECT**

An applied action research project focusing on the development of a management-oriented program. The delivery and then evaluation of the program within an existing educational service occurs. The Extended Field Project includes a research report with greater breadth and depth than the 12 credit point Field Project.

Course: ED23
Credit Points: 24
Incompatible with: EDP514

■ **EDP601 THE REFLECTIVE PRACTITIONER IN HIGHER EDUCATION**

Develops critical, reflective and proficient tertiary educators with a commitment to learning as a lifelong process; begins with and builds upon the various experiences which the participants bring with them.

Course: ED61
Credit Points: 12 **Contact Hours:** 3 per week

■ **EDP602 ADULT LEARNING & TEACHING IN HIGHER EDUCATION**

The theory and practice of teaching adults; the appropriateness of particular approaches to the needs, interests and learning styles of adult audiences; involves the application of theoretical perspectives to the practice of teaching adults in varied higher education and contexts.

Course: ED61
Credit Points: 12 **Contact Hours:** 3 per week

■ **EDP603 HIGHER EDUCATION IN AUSTRALIA: CONTEXT & ISSUES**

History of higher education in Australia; current structure and funding of higher education in Australia; major stakeholders and key institutional interfaces; professional associations, TAFE, secondary education, industry, student groups, government.

Course: ED61
Credit Points: 12 **Contact Hours:** 3 per week

■ **EDP604 PROGRAM DESIGN & EVALUATION IN HIGHER EDUCATION**

Identifies and describes the major theoretical underpinning of educational planning and evaluation; traces the historical shifts within the practice of course design and evaluation; demonstrates skills in evaluation and subsequent planning for course integration; and demonstrates skills in critical analysis of evaluation designs and procedures.

Course: ED61
Credit Points: 12 **Contact Hours:** 3 per week

■ **EDR702/1-9 THESIS**

Provides students with an opportunity to extend and synthesise knowledge from the coursework section; allows the coursework to be applied in a manner that reflects how it might be used in future work situations; provides a means of extending the skills and understandings gained from formal units to investigate in depth some aspects of the student's professional practice. Focuses on the extension of acquired knowledge to increase the understanding and competence of skilled professional educators; facilitates the application of innovative research but grows out of the professional coursework. All candidates will proceed through the three required thesis steps. Namely, Step (a) Thesis Preparation; Step (b) Thesis Confirmation of Candidature; and Step (c) Thesis Implementation.

Course: ED11 **Prerequisites:** EDR703
Credit Points: 24 each

■ **EDR703 INTERDISCIPLINARY EDUCATION STUDIES (ADVANCED SEMINARS)**

A reading and seminar program that aims to broaden and deepen the student's initial perspective to include elements derived from theoretical perspectives drawn from a number of disciplines; seeks to provide a context of learning for educators who seek the personal and professional benefits that the broadening and deepening of their professional knowledge affords.

Course: ED11
Credit Points: 24

■ **EDR704/1-9 THESIS**

Provides students with an opportunity to extend and synthesise knowledge from the coursework section; allows

the coursework to be applied in a manner that reflects how it might be used in future work situations; provides a means of extending the skills and understandings gained from formal units to investigate in depth some aspects of the student's professional practice. Focuses on the extension of acquired knowledge to increase the understanding and competence of skilled professional educators; facilitates the application of innovative research but grows out of the professional coursework. All candidates will proceed through the three required thesis steps. Namely, Step (a) Thesis Preparation; Step (b) Thesis Confirmation of Candidature; and Step (c) Thesis Implementation.

Course: ED11 **Credit Points:** 12 each

■ **EEB101 CIRCUITS & MEASUREMENTS**

The concepts of voltage, current and electrical impedance, simple electrical circuits (R, L and C) and the measurement of electrical quantities using the oscilloscope, meters and bridges; AC theory, errors in measurement, traceability of measurement.

Courses: CE42, EE43, EE44, EE45, IF42, IF44, IF53, IF56, ME23, ME36, ME45, ME46, ME47, IF25

Credit Points: 8 **Contact Hours:** 3 per week

■ **EEB209 ELECTRICAL ENGINEERING 2M**

This unit aims to provide a basic understanding of electric circuits, power calculation in single-phase and three-phase systems, laws of electrostatics, electromagnetic fields, single-phase transformer, AC and DC machines, basic electronics with some engineering applications.

Courses: IF53, IF56, ME35, ME45, ME46, ME47

Credit Points: 8 **Contact Hours:** 3 per week

■ **EEB210 NETWORK ANALYSIS**

This unit develops the use of complex number theory for the solution of electric circuit problems, and introduces the concepts of frequency domain analysis. Topics covered include network theorems, mesh and nodal analysis, complex and three-phase power, the transient response of RL, RC and RLC circuits with step forcing functions, computer aided analysis of circuits using standard software packages (e.g. PSPICE) and Laplace transform theory and application to the transient response of linear circuits. Initial conditions, circuit transformation into the frequency domain.

Courses: EE43, EE44, EE45, IF44, IF25

Prerequisites: EEB101

Credit Points: 8 **Contact Hours:** 4 per week

■ **EEB270 DIGITAL DESIGN PRINCIPLES**

Binary variables, number systems; signed numbers and codes; Boolean algebra; logic functions, minimisation; implementation of combinational logic by gates, PROMs and GALs; binary arithmetic, adders and subtractors, overflow conditions; synchronous and asynchronous sequential logic; flip-flops, counters and shift registers; state diagrams and transition tables, implementation of sequential machines using feedback, flip-flop, PROMs, GALs; TTL, MOS and CMOS logic families.

Courses: EE43, EE44, EE45, IF23, IF44, IF53, IF56, IF25

Credit Points: 8 **Contact Hours:** 3 per week

■ **EEB302 ELECTROTECHNOLOGY 1**

Magnetic circuits, magnetic materials, transformers and electromagnetic devices. Power distribution, three-phase, balanced and unbalanced loads.

Courses: EE44, IF23, EE45, IF44, IF25

Prerequisite: EEB210

Credit Points: 8 **Contact Hours:** 3 per week

■ **EEB310 NETWORK SYNTHESIS**

This unit aims to give students a good understanding of the synthesis of networks and filters. Topics discussed

include frequency response and Bode plots, stability and realisability of networks, standard filter approximations, the synthesis of passive networks and filters and the synthesis of active filters using positive and negative feedback and three amplifier biquadrate circuits.

Courses: EE43, EE44, EE45, IF44, IF25

Prerequisite: EEB210, MAB188

Credit Points: 8 **Contact Hours:** 4 per week

■ **EEB362 INTRODUCTION TO TELECOMMUNICATIONS**

An introduction to the theoretical foundation of communication systems; using the theoretical foundation to develop the operation and characteristics of the basic forms of amplitude and angle modulation; the hardware associated with the generation and detection of the modulation systems.

Courses: EE43, EE44, IF23, EE45, IF44, IF25

Prerequisites: MAB188, EEB210 or EEB271

Credit Points: 8 **Contact Hours:** 3 per week

■ **EEB375 ELECTRONICS 1**

Provides basic understanding of the characteristics and operation of discrete semiconductor components; introduces electronic circuit design with emphasis on the low and high frequency response of those circuits; develops the theory and design of feedback structures in electronic circuits and amplifiers.

Courses: EE43, EE44, EE45, IF44, IF25, ME46

Credit Points: 8 **Contact Hours:** 4 per week

■ **EEB380 ENGINEERING MANAGEMENT SKILLS**

Writing style, preparation of written documents for engineering and management; spoken English. Oral presentation and speechwriting. Political and technical speeches. Theory of argument and discourse; assertion training, aggressive and passive behaviour. Interpersonal relationships; organisational change and the management of change; professional ethics for engineers and in a wider context; industrial relations; negotiation.

Courses: EE43, EE44, IF23, EE45, IF44, IF25

Credit Points: 8 **Contact Hours:** 3 per week

■ **EEB390 ENGINEERING COMPUTING 1**

Students will understand principles and use of C syntax and data structures, program structuring and design, programming style and organisation, and program development in an engineering context. Exposure to Unix in a typical engineering workstation environment will be obtained. Experience will be acquired in programming solutions to important electrical engineering problems and applications, particularly numerical techniques, statistical techniques and circuit/signal techniques.

Courses: EE43, EE44, EE45 **Prerequisite:** CSB192

Credit Points: 8 **Contact Hours:** 3 per week

■ **EEB400 ELECTROTECHNOLOGY 2**

Introduction to electrical power systems calculations; technology of overhead lines and cables; elementary electrical engineering economics.

Courses: EE44, EE45, IF23, IF44, IF25

Prerequisite: EEB302

Credit Points: 8 **Contact Hours:** 3 per week

■ **EEB420 CONTROL SYSTEMS 1**

This is a first course in feedback control for engineers. It introduces the student to basic control theory, analysis and synthesis. Hardware is introduced through sensors and activation system. Mathematical Modelling of Dynamical Systems; Sensors and Actuation Systems; Characteristics and Performance of Feedback Control Systems; Linear System Stability.

Courses: EE43, EE44, EE45, IF44, IF25

Prerequisite: EEB101

Credit Points: 8 **Contact Hours:** 3 per week

■ EEB475 MICROPROCESSOR SYSTEMS

To give students a good grounding in the basic principles and practical use of embedded microprocessor/microcontroller systems, with particular regard to the hardware and software. Parallel data transfer, memory decoding, and Centronics interface; Synchronous and asynchronous serial data communications RS232, RS422, etc.; DACs and ADC; Instruction sets, machine and assembly language programming; Input/output devices, and timers; Real time clocks and interrupt driven systems; Application of C to the programming of embedded systems.

Courses: EE43, EE44, EE45, IF44, IF25

Prerequisites: EEB270, EEB390 or ITB411

Credit Points: 8 Contact Hours: 3 per week

■ EEB476 ELECTRONICS 2

Operational amplifiers; theory and practical applications; comparators; signal conditioning; log, anti-log amplifiers; precision rectifiers; peak detectors and Schmitt trigger; Instrumentation amplifiers; operational amplifier practical design considerations: noise and EMI; circuit layouts for high frequency applications; interfacing techniques. Power semiconductor devices: power diode, Zener diode, SCR, GTO, Triac, BJT, MOSFET and IGBT and their control; Power amplifiers: classes A, B, AB; alternating current control circuits using SCRs and Triacs; rectifiers and unregulated power supply theory and design; Series voltage regulator power supplies: overload protection and foldback; integrated circuit regulators design; switched mode regulator: buck and boost regulators, theory and design.

Courses: EE44, EE45, EE43, IF44, IF25

Prerequisite: EEB375

Credit Points: 8 Contact Hours: 4 per week

■ EEB530 ENGINEERING ELECTROMAGNETICS

The aim of this subject is to develop the student's understanding of the basic theory leading to the development and solution of Maxwell's Equations. An objective is to develop his intuitive as well as his theoretical understanding and leave the development of more advanced concepts of the theory until later in the course.

Course: EE44, EE45, IF44, IF25

Prerequisites: EEB400, MAB486, PHB234

Credit Points: 8 Contact Hours: 3 per week

■ EEB532 POWER SYSTEMS 1

Transmission line parameters, power system modelling and the pu method. Symmetrical faults in power systems. Circuit breakers selection. Generalised circuit constants. Power flow in lumped systems and the power circle diagram. Protection in electrical systems: fuse operation and selection, motor protection, MCCB, IDMT relay, discrimination.

Courses: EE44, EE45, IF44, IF25

Prerequisite: EEB400

Credit Points: 8 Contact Hours: 3 per week

■ EEB564 INFORMATION THEORY MODULATION & NOISE

Information in discrete and continuous channels, coding efficiency, statistical description of noise, effects of transformations on signal parameters, error rates, effect of noise in information transfer.

Courses: EE43, EE44, IF23

Prerequisites: EEB362, EEB566

Credit Points: 8 Contact Hours: 3 per week

■ EEB565 SIGNALS & LINEAR SYSTEMS

A detailed study of Fourier theory applied to signals; an overview of systems and their representation; response of systems to signals.

Courses: EE43, EE44, IF23, EE45, IF44, IF25

Prerequisites: EEB362, MAB486, EEB310

Credit Points: 8 Contact Hours: 3 per week

■ EEB582 AEROSPACE DESIGN 1

Study of the environmental factors affecting the design of aerospace equipment particularly in relation to US and Australian standards and specifications (e.g. US Mil Specs, FAA requirement such as FAR 23, 25 and Technical Service Orders, Australian certification requirements both civil and military). Examination in detail of the operating regime for avionics equipment such as the properties of the atmosphere (temperature, pressure, humidity), design load factors for aeronautical equipment, reliability and duplication requirements.

Course: EE43

Credit Points: 8 Contact Hours: 3 per week

■ EEB587 DESIGN 1

General principles of electronic circuit and electrical equipment design and the realisation of typical electronic circuits and equipment.

Courses: EE44, IF23, EE45, IF44, IF25

Prerequisite: EEB476

Credit Points: 8 Contact Hours: 3 per week

■ EEB593 SOFTWARE SYSTEMS ENGINEERING

Students will learn concepts, issues, theory, techniques and practice of software engineering methodologies. They will examine and develop applications software for high level and low level (embedded) systems. They will gain experience in use of computer assisted software engineering facilities and will undertake a major team software design and construction project for an extensive electrical engineering task. Software design principles; OOP as a paradigm for SW design; program development tools; human-computer interaction.

Courses: EE43, EE44, EE45 Prerequisites: EEB390

Credit Points: 8 Contact Hours: 3 per week

■ EEB624 CONTROL SYSTEMS 2

Analysis and design of systems using state-space method. An introduction to optimal control. Z-transform application to digital control system analysis and design using classical and modern approaches. System identification/modelling. Nonlinear system analysis and design.

Courses: EE43, EE44, EE45, IF44, IF25

Prerequisites: EEB420

Credit Points: 8 Contact Hours: 3 per week

■ EEB632 POWER SYSTEMS 2

Fault analysis (unbalanced faults) on power systems using symmetrical component techniques. Power flows in electrical networks using Gauss-Seidel and Newton-Raphson techniques. Studies of the cause and effects of travelling waves on transmission systems. Computer analysis techniques are used in all areas to reinforce understanding of each topic.

Course: EE44, EE45, IF44, IF25

Prerequisite: EEB532

Credit Points: 8 Contact Hours: 3 per week

■ EEB665 TRANSMISSION & PROPAGATION

Transmission line theory, terminated line, Smith Circle Chart usage and lattice diagram; propagation modes in wave guides and optical fibres; free-space propagation, ionospheric and ground wave propagation; basic antenna parameters.

Courses: EE43, EE44, IF23, EE45, IF44, IF25

Prerequisite: EEB530

Credit Points: 8 Contact Hours: 3 per week

■ EEB667 DIGITAL COMMUNICATIONS

The theory and applications of digital communications technology; baseband digital signals are introduced;

pulse shaping, signal regeneration, measurement techniques and the digital coding of analogue signals are treated; such applications as digital radio systems, digital telephone and computer networks, error control in digital networks and ISDN.

Courses: EE43, EE44, IF23, EE45, IF44, IF25
Prerequisites: EEB564
Credit Points: 8 **Contact Hours:** 3 per week

■ **EEB668 DIGITAL SIGNAL PROCESSING**
 Introduction to digital signal processing; discrete Fourier transform; discrete convolution; digital filtration and spectral estimation.

Courses: EE43, EE44, IF23, EE45, IF44, IF25
Prerequisite: EEB565, MAB893
Credit Points: 8 **Contact Hours:** 3 per week

■ **EEB682 ENGINEERING BUSINESS SKILLS**
 To provide students with sufficient grounding in business practice, for them to appreciate the fundamental links between engineering practice and business. There should be adequate skills for young professional engineers to start or be an active partner in a small business.

Courses: EE43, EE44, EE45, IF44, IF25
Credit Points: 8 **Contact Hours:** 3 per week

■ **EEB683 AEROSPACE DESIGN 2**
 Designing for reliability as required by the aviation and aerospace industry will augment practical design assignments; assignments require that design problems be solved analytically and the results confirmed by equipment construction and practical measurement; computer-aided design, computer simulation and programming may be required.

Course: EE43
Prerequisites: EEB362, EEB400, EEB582, EEB624
Credit Points: 8 **Contact Hours:** 3 per week

■ **EEB691 AERONAUTICAL COMPUTING**
 Suitable languages such as ADA are used to implement embedded avionics computer systems and practical experience is gained in the application of object-oriented software design, concurrence and distributed systems used in the aerospace industry.

Course: EE43 **Prerequisite:** EEB390, EEB475
Credit Points: 8 **Contact Hours:** 3 per week

■ **EEB692 SPACE TECHNOLOGY**
 Review of world launch capability; spherical trigonometry; orbits and trajectories, e.g. launch orbits, geostationary orbits, G.P.S. satellite orbit requirements; gravitational fields, Lagrange points, orbital dynamics and parameters; special purpose orbits; orbit determination from tracking data; payload techniques; upper atmospheric meteorology and introduction to astronomy.

Course: EE43
Credit Points: 8 **Contact Hours:** 3 per week

■ **EEB693 REAL-TIME OPERATING SYSTEMS**
 Theory and practical aspects of the use of microprocessors and computers as components in time critical engineering applications; methods of guaranteeing computer response within a specifiable time; applications related to embedded systems and some business applications; design of new systems and study of existing systems.

Courses: EE43, EE44, IF23, EE45
Prerequisite: EEB593
Credit Points: 8 **Contact Hours:** 3 per week

■ **EEB722 FLIGHT CONTROL SYSTEMS**
 Principles and description of flight control systems; performance of aircraft in flight; analysis and simulation of flight control systems; cross-coupling parameters; methods of coupling terrain following radar and other navigational aids; mechanical systems; analogue aug-

mented systems; digital augmented systems; digital computer control relating to multiplex buses (Mil spec); artificial stability; automatic pilots during flight and landing; fibre optic control; fly-by-wire systems; use of redundancy.

Course: EE43 **Prerequisites:** MEB553,
Credit Points: 8 **Contact Hours:** 3 per

■ **EEB730 RADAR & RADIO NAVIGATION**
 Radar equation; theory of reception; matched filtering; principles of detection; types of radars; primary and secondary radar; surveillance; tracking; navigation; terrain-following radar; radar techniques including doppler extraction, moving target indicator, pulse compression, ranging parameter optimisation, application of matched filtering and Wiener and Kalman filtering; detailed and systematic study of navigational systems; microwave landing systems.

Course: EE43
Prerequisites: EEB665, EEB765, EEB668
Credit Points: 8 **Contact Hours:** 3 per week

■ **EEB741 POWER SYSTEMS ANALYSIS**
 Economic operation of power systems, system stability, power system control; HVDC power transmission; advanced harmonic analysis; surge phenomena in machine and transmission lines.

Course: EE44, EE45, IF44, IF25
Prerequisite: EEB632
Credit Points: 8 **Contact Hours:** 3 per week

■ **EEB752 POWER ELECTRONICS**
 Review of modern switching components, characteristics and device control methods; principles of operation of controlled rectifiers and chopper techniques for DC motor control; quasi-square and PWM invertors for induction and synchronous motor control; static switches for induction motor soft start control and static VAR compensation; induction motor drive and DC motor drive control strategies; harmonic analysis and waveform modelling analysis.

Course: EE44, EE45, IF44, IF25
Prerequisite: EEB476
Credit Points: 8 **Contact Hours:** 3 per week

■ **EEB762 COMMUNICATIONS TECHNOLOGY**
 Introduction to three important communication technology areas. Study of the techniques for system design and performance analysis of mobile and satellite communication systems; study of the fundamentals optical fibre communication systems.

Course: EE44, EE43, EE45, IF44, IF25
Prerequisites: EEB564, EEB667
Credit Points: 8 **Contact Hours:** 3 per week

■ **EEB763 MODERN SIGNAL PROCESSING**
 Introduction to signal processing and an overview of some practical applications of signal processing. Review of probability and statistics: random variables; elements of statistics. Stochastic (random) processes: definition, stationarity and ergodicity. Covariance functions: Random signals and linear systems: input-output relationships; Gaussian random processes; examples. Matched filters: general properties; results in white noise; correlation processing. Wiener filters: general properties. Detection and estimation theory: the basic components of the theory.

Courses: EE43, EE44, EE45, IF25, IF44
Prerequisites: EEB563, MAB893
Credit Points: 8 **Contact Hours:** 3 per week

■ **EEB765 MICROWAVE & ANTENNA TECHNOLOGY**
 Propagation in rectangular and circular guides, guide components, microwave active devices, high frequency

techniques, antennas, antenna arrays, computer-aided antenna design, antenna measurements.

Courses: EE43, EE44, EE45, IF44, IF25

Prerequisite: EEB665

Credit Points: 8

Contact Hours: 3 per week

■ EEB780 AEROSPACE DESIGN 3

Practical design assignments consisting of detailed design and realisation of typical subsystems used in all areas of the avionics industry; assignments require that design problems be solved analytically and the results confirmed by equipment construction and practical measurement; computer-aided design, computer simulation and programming may be required.

Course: EE43

Prerequisites: EEB475, EEB668, EEB683

Corequisites: EEB947, MEB790

Credit Points: 8

Contact Hours: 3 per week

■ EEB787 AEROSPACE PROJECT

An individual engineering project on a special subject. The work requires design, computing, construction and experimental work and practical testing with the submission of appropriate reports; the topic is selected from aerospace engineering and involves electronics, computing, control, communication and electrical power; it may include programming, circuit and system design.

Course: EE43

Credit Points: 24 **Contact Hours:** Average 5 per week

■ EEB788 DESIGN 2

Design principles and practice of more complex electronic circuits; electrical equipment and systems.

Courses: EE44, IF23, EE45, IF44, IF25

Prerequisites: EEB302, EEB587, EEB420

Credit Points: 8

Contact Hours: 3 per week

■ EEB791 ADVANCED ENGINEERING COMPUTING 1

An examination of underlying theory and algorithms pertaining to selected advanced computational techniques for selected areas of engineering problems. Practical experience in the use of existing software and in constructing their own implementations of some techniques, for engineering problems, is obtained. Artificial intelligence techniques; optimisation techniques; simulation techniques.

Course: EE44, EE45, IF44, IF25

Prerequisite: EEB593 or ITB424

Credit Points: 8

Contact Hours: 3 per week

■ EEB820 ENGINEERING MANAGEMENT

Economic analysis of electrical engineering projects; present worth and annual cost calculations. Assessment of tenders; project management, critical paths and linear programming methods; contract administration. Engineering case studies.

Courses: EE43, EE44, IF23, EE45, IF44, IF25

Credit Points: 8

Contact Hours: 3 per week

■ EEB822 ADVANCED CONTROL SYSTEMS

Analysis and design of optimum control technique. Variational calculus approach and Hamilton-Jacobi approach to control system design. Stochastic processes and linear and non-linear optimum state estimation. Discrete optimal control. Discrete-data control systems. Microprocessor and DSP control.

Course: EE44, EE43, EE45, IF44, IF25

Prerequisites: EEB624

Credit Points: 8

Contact Hours: 3 per week

■ EEB842 POWER SYSTEMS ENGINEERING

Substation engineering, protection of plant, substation earthing, system overvoltages, insulation coordination, HV switchgear.

Course: EE44, EE45, IF44, IF25

Prerequisite: EEB532

Credit Points: 8

Contact Hours: 3 per week

■ EEB869 SIGNAL FILTERING & ESTIMATION

Modern spectral estimation, parametric and non-parametric; time frequency analysis and instantaneous frequency estimation; definition and implementation of higher order spectra; application to signal detection and classification.

Courses: EE44, IF23, EE43, EE45, IF44, IF25

Prerequisite: EEB668

Credit Points: 8

Contact Hours: 3 per week

■ EEB871 APPLIED ELECTRONICS

Analysis of the characteristics and applications of a variety of integrated devices; particular attention is given to new products; errors and quality of design.

Courses: EE43, EE44, IF23, EE45, IF44, IF25

Prerequisite: EEB476

Credit Points: 8

Contact Hours: 3 per week

■ EEB881 PRODUCTION TECHNOLOGY & QUALITY

The methodology of electronic system design, the range of production processes in electronic manufacture, and the quality control procedures at both prototype and full production stages.

Courses: EE43, EE44, IF23, EE45, IF44, IF25

Prerequisite: EEB587, EEB788

Credit Points: 8

Contact Hours: 3 per week

■ EEB885 DESIGN 3

Detailed design and realisation of typical electronic and power based subsystems used in all areas of electronic systems and power systems engineering.

Courses: EE44, IF23, EE45, IF44, IF25

Prerequisite: EEB788

Credit Points: 8

Contact Hours: 3 per week

■ EEB889 PROJECT

An individual engineering project on a specified topic is completed; the work will require design, computing, construction, experimental work and practical testing with the submission of appropriate reports; the topic is selected from any area which involves electronics, computing, control, communication and educational power and may include programming, circuit and system design.

Courses: EE44, IF23, EE45, IF44

Corequisites: This unit must be done in the final year of the course.

Credit Points: 324

Contact Hours: Average 5 per week

■ EEB891 SIGNAL COMPUTING & REAL-TIME DSP

Signal theory; speech processing; image processing and real time DSP; the fundamentals of signal processing concepts; applications of signal processing techniques.

Courses: EE43, EE44, IF23, EE45, IF44, IF25

Prerequisites: EEB668

Credit Points: 8

Contact Hours: 3 per week

■ EEB892 ADVANCED ENGINEERING COMPUTING 2

Selected basic graphic techniques and writing of simple engineering graphics software; application of graphics software libraries and interactive graphics facilities; appreciation of graphical user environments, interface, windows and graphical tools; an understanding of and ability to use 2D/3D/4D data visualisation techniques, and spatial data manipulation.

Course: EE44, EE43, EE45, IF44, IF25

Prerequisites: EEB593 or ITB424

Credit Points: 8

Contact Hours: 3 per week

■ EEB910 PHOTOVOLTAIC ENGINEERING

The various aspects of photovoltaic systems including flat panel and concentrating solar cell arrays, series-parallel connection for optimal array design, array measurements, power conditioning, load management, energy storage, system costs, and balance, of subsystems.

Course: EE43, EE44, IF23, EE45, IF44, IF25

Prerequisite: EEB587

Credit Points: 8 **Contact Hours:** 3 per week

■ EEB923 INDUSTRIAL CONTROL SYSTEMS

The structure of modern manufacturing industries. Hierarchical control, including strategic control, tactical control, reactive control and reflexive control. Just-in-time manufacturing, computer-integrated-manufacturing and manufacturing resource planning. The role of computer control in manufacturing. Programmable logic controllers. Distributed control systems; digital communication networks for use in factories. Search and optimisation techniques for use in plant. The use of optimal control; fuzzy control. Computer-numerical-controlled machine tools. Robotics applications in manufacturing.

Courses: EE45, IF23, IF25, IF44

Prerequisites: EEB420, EEB624

Credit Points: 8 **Contact Hours:** 3 per week

■ EEB932 AUTOMATIC FLIGHT CONTROL

The application of design principles to the Flight Control Systems of modern civil and military aircraft. Derivation of transfer functions for aircraft and missiles including effects of vibration and other perturbations on servo systems along with servo actuators and sensors. Use of conventional and modern control theory to analyse and design and lateral-directional stability augmentation systems and control augmentation systems. Study of autopilot design for various tasks including turn coordination and automatic landing, stabilisation of aircraft and adaptive control systems.

Course: EE43

Prerequisites: EEB722

Credit Points: 8 **Contact Hours:** 3 per week

■ EEB933 COMBAT SYSTEMS

Sound generation propagation and analysis in the maritime environment; principles and application of lasers to sighting and guidance systems; principles of detection of submarines using magnetometers; infra-red propagation and its use in detection and weapons guidance; including ECM/ECCM; sonar processing; laser processing and guidance; radar guidance/sighting; gun sights; weapons control systems; IFF/ transponders; command and control; magnetic anomaly detection; tactical navigation systems; infra-red.

Course: EE43

Prerequisite: EEB930

Credit Points: 8 **Contact Hours:** 3 per week

■ EEB934 ADVANCED COMMUNICATIONS & NAVIGATION SYSTEMS

Expansion of previous theory; develop an increased understanding of systems previously described; complex algebra required for error-correcting codes and auto-correlation and cross-correlation of pseudo-noise sequences; investigation and simulation of error-correcting communication systems; detailed investigation into modern communication systems; theory of acquisition and tracking using delay-lock and similar techniques; use of fast-fourier and parallel processing the Global Positioning System (GPS); position fixing using GPS.

Course: EE43

Prerequisites: EEB362, EEB665, EEB765, EEB668

Credit Points: 8 **Contact Hours:** 3 per week

■ EEB935 ADVANCED SATELLITE SYSTEMS

Design of communication systems for spacecraft; spacecraft and ground stations performance; special modula-

tion methods; coherent frequency translation modes of operation; analysis of intermodulation distortion; carrier regeneration or synchronisation and acquisition and tracking requirements; analogue and digital processing of signals in the presence of noise; factors affecting accuracy of ranging; characterisation of spacecraft components and a critical evaluation of alternative design methods; design parameters of various aerial systems; design of low-noise amplifiers; description of B-MAC television system.

Course: EE43

Prerequisites: MEB692.

Credit Points: 8 **Contact Hours:** 3 per week

■ EEB957 HIGH VOLTAGE EQUIPMENT

Review of modern insulating materials; high voltage test methods and apparatus; characteristics of electrical insulation theories of breakdown in dielectrics; non-destructive testing methods, dielectric loss angle, partial discharge; voltage surge distribution in power equipment; overhead line insulation and lightning.

Course: EE44, IF23, EE45, IF44, IF25

Corequisite: EEB632

Credit Points: 8 **Contact Hours:** 3 per week

■ EEB958 ELECTRICAL ENERGY UTILISATION

Power reticulation in building, energy management, fire protection systems, illumination technology, air conditioning plant, building supervising and control systems, lifts.

Course: EE44, IF23, EE45, IF44, IF25

Prerequisite: EEB400

Credit Points: 8 **Contact Hours:** 3 per week

■ EEB959 POWER ELECTRONICS APPLICATIONS

Review of power electronic switching devices; variable speed AC and DC drives; high voltage DC transmission (HVDC); standard static VAR compensators and new developments. Uninterruptible power supplies (UPS); induction heating; high frequency switching technology in variable speed AC drives; power electronic physical layout considerations.

Courses: EE44, IF23, EE45, IF44, IF25

Prerequisite: EEB752

Credit Points: 8 **Contact Hours:** 3 per week

■ EEB963 STATISTICAL COMMUNICATIONS

PCM quantisation noise in uniform and non-uniform quantisation; effects of channel noise on S/N; delta and delta-sigma modulations; threshold extensions, spread spectrum, matched filtering and correlation.

Courses: EE43, EE44, IF23, EE45, IF44, IF25

Prerequisite: EEB564, EEB668

Credit Points: 8 **Contact Hours:** 3 per week

■ EEB965 MICROWAVE SYSTEMS ENGINEERING

Microwave thermionic and semiconductor devices, amplifier design using scattering parameters; passive microwave devices; non-linear networks and ferrites; array theory and design, microwave antennae.

Courses: EE43, EE44, IF23, EE45, IF44, IF25

Prerequisite: EEB665

Credit Points: 8 **Contact Hours:** 3 per week

■ EEB974 VLSI CIRCUITS AND SYSTEMS

Design of digital integrated circuits at mask level, symbolic level, transistor level and module level; IC planar fabrication process; Implementation technologies including FPGAs, Gate Arrays, Standard Cells and full-custom ICs; CAD tools for specification, layout verification and testing; memory circuits and systems.

Courses: EE44, EE45, IF23, IF44, EE43, IF25

Prerequisite: EEB474 or EEB475

Credit Points: 8 **Contact Hours:** 3 per week

■ **EEB990 ADVANCED INFORMATION TECHNOLOGY TOPICS**

Supercomputer principles, architectures, characteristics, performance measures. Hardware components for supercomputers; parallel programming environments, automatic code parallelization techniques; parallel algorithm design and development approaches; parallel computer system process scheduling strategies and load balancing; numerical applications; computer graphics applications; case study.

Courses: EE43, EE44, EE45, IF25, IF44

Prerequisites: EEB593 or ITB424

Credit Points: 8 Contact Hours: 3 per week

■ **EEB999 ADVANCED ELECTRICAL ENGINEERING TOPICS**

Students are introduced to the current technology that is the expertise of visiting specialists or staff within the School.

Course: EE43, EE44, EE45, IF44, IF25

Prerequisites: As required

Credit Points: 8 Contact Hours: 3 per week

■ **EEP101 ALGORITHMS FOR CONTROL & ENGINEERING**

Solution of equations using numerical analysis methods and computer algorithms; differential and difference equations, numerical approximations and computational flow diagrams. Computer control of closed-loop systems, continuous and discrete systems, system hardware, sampled data systems design techniques, system simulation; state-space theory, and system performance optimisation; state equation, transformations, state equation solution, closed-loop system pole-placement design, performance criteria, dynamic optimisation methods; spectral analysis and digital filtering; discrete time adaptive filters; an introduction to neural networks and to fuzzy logic.

Courses: CE74, EE65, EE76

Credit Points: 12 Contact Hours: 3 per week

■ **EEP102 UNIX & C FOR ENGINEERS**

Introduction to Operating Systems; commonly used commands, the file structure, the Shell, the vi Editor, Shell script; Types, operators and expressions, control flow, functions, pointers and arrays, structures, input and output. Applications of C and Unix in real time signal processing and control.

Courses: CE74, EE65, EE76

Credit Points: 12 Contact Hours: 3 per week

■ **EEP103 COMPUTER HARDWARE & INTERFACING**

State-of-the-art digital devices; design and implementation of digital systems; microprocessors and microcontroller systems and interfacing; computer architectures, subsystems and peripherals.

Courses: EE65, EE76

Credit Points: 12 Contact Hours: 3 per week

■ **EEP104 REAL-TIME OPERATING SYSTEMS**

Definition and introduction: review of current commercial real time operating systems, including QNX and UNIX-like operating systems. Structure: management; input/output management; file management; resource allocation and scheduling; protection; job control and multitasking. Development of programming skills: structured programming techniques, modular programming techniques; documentation of programs; interrupt handling techniques. Using assembler and high-level languages.

Courses: CE74, EE65, EE76

Credit Points: 12 Contact Hours: 3 per week

■ **EEP120 NETWORKS & DISTRIBUTED COMPUTING**

The Open System Interconnection model and the more

common standards which support the model; layers 3-7 covered in depth, layers 1 and 2 covered by reference; computers, software packages; network topologies, software techniques, data transfer protocols; examples of local and wide area networks; hardware implementation of OSI layers and protocols; Modern High Performance Networking protocols such as FDDI and ATM, treated as extensions of the OSI model.

Courses: CE74, EE65, EE76

Credit Points: 12 Contact Hours: 3 per week

■ **EEP121 PARALLEL & SUPER COMPUTING**

Systems engineering design and economics of High Performance Computers; vector processing and parallel computing technology; students will have access to vector and parallel computers and may be required to undertake a small research project.

Courses: EE65, EE76

Credit Points: 12 Contact Hours: 3 per week

■ **EEP122 GRAPHICS & COMPUTER VISION**

An introduction to the human visual system computer graphics and the modelling of digital images. It also provides an introduction to a range of digital image process systems, pattern recognition and image synthesis.

Courses: EE65, EE76

Credit Points: 12 Contact Hours: 3 per week

■ **EEP123 PROCESS CONTROL & ROBOTICS**

Introduction to robotics; introduction to CNC machine tools; process control; controller tuning, plant characterisation and process optimisation; computer simulation and algorithms.

Courses: EE65, EE76

Credit Points: 12 Contact Hours: 3 per week

■ **EEP124 DATA COMMUNICATIONS**

The OSI Model – overview; examples of channels; physical layer interface standards; multiple access methods; modems; data coding error detection and correction; data compression and encryption; public networks, and other specialised topics.

Courses: CE74, EE65, EE76

Credit Points: 12 Contact Hours: 3 per week

■ **EEP125 ADVANCED ENGINEERING SOFTWARE TOOLS**

Numerical techniques and computer software tools in procedural and non-procedural languages as well as specialised commercial applications packages for the analysis and design of data transmission systems. Techniques and applications of interest to students may be included in small research projects with guidance.

Courses: EE65, EE76

Credit Points: 12 Contact Hours: 3 per week

■ **EEP126 COMMUNICATIONS DIGITAL SIGNAL PROCESSING**

Source and channel coding; waveform coding; adaptive filtering in communication; applications of speech technology in communication; applications of DSP technology; real time DSP devices and their applications in communications.

Courses: CE74, EE76

Credit Points: 12 Contact Hours: 3 per week

■ **EEP127 ADVANCED TOPIC B**

An advanced topic in the field of computers and communication engineering. This topic will change from year to year and is announced at the beginning of the semester.

Courses: CE74, EE76

Credit Points: 12 Contact Hours: 3 per week

■ **EEP128 DETECTION & ESTIMATION**

Introduction to the theory of random variables and probability; signal detection; hypothesis tests, Neyman-

Pearson detectors; uniformly most powerful tests for Gaussian case. Examples of detection of: an unknown deterministic signal in Gaussian noise of known probability distribution; Matched-Filter interpretation; a Gaussian signal of known distribution in Gaussian noise of known distribution. Detection in the non-Gaussian case. Parameter estimation: the Maximum Likelihood Estimator.

Courses: CE74, EE76
Credit Points: 12 **Contact Hours:** 3 per week

■ **EET129 IMAGE PROCESSING & COMPUTER VISION**

Image representation and modelling; image enhancement; image restoration; image representation by stochastic models, boundary detection techniques and algorithms; image segmentation; shape description techniques; neighbourhood operators; mathematical morphology. Other specialised topics may be included as small research projects.

Courses: CE74, EE65, EE76
Credit Points: 12 **Contact Hours:** 3 per week

■ **EET135 ADVANCED DIGITAL SIGNAL PROCESSING**

General properties of stationary processes; basic spectral properties of the processes; practical aspects of digital spectral estimation; identification of linear systems; digital higher-order spectral estimation; identification of non-linear systems; an update in the advances in digital signal processing.

Courses: CE74, EE76
Credit Points: 12 **Contact Hours:** 3 per week

■ **EET137 ADVANCED TOPIC A**

An advanced topic in the field of computers and communication engineering. This topic will change from year to year and is announced at the beginning of the semester.

Courses: CE74, EE76
Credit Points: 12 **Contact Hours:** 3 per week

■ **EET201 FUNDAMENTALS OF POWER SYSTEM EARTHING**

Electrode resistance, potential gradient areas of common types of electrodes; multiple electrodes; stratified grounds; electric shock, calculation of step and touch potentials; introduction to substation earthing: ground potential rise, connection of services, grid and mesh potentials; measurement of soil resistivity and electrode resistance; earthing of transmission lines: tower foot resistance, current division between ground and aerial earth wires, division of earth currents at substations; earth current distribution on faulted lines; distribution systems: MEN, SWER, safety during faults; flow of lightning currents to ground.

Courses: EE82, EE60, EE78
Credit Points: 4 **Contact Hours:** 3 per week

■ **EET202 THERMAL RATINGS & HEAT TRANSFER**

Thermal conduction in simple geometries; forced and natural convection from plates and cylinders – common heat transfer correlations; radiation from hot surfaces - view factors; calculation of steady-state and time-varying temperatures in conductors; temperature measurement methods for high voltage equipment; thermal ratings of overhead lines – steady-state, cyclic and short-time ratings; cable rating – temperature rise due to step current, cyclic and emergency loads; temperature rise of power transformers – cooling methods, emergency overloads.

Courses: EE82, EE60, EE78
Credit Points: 4 **Contact Hours:** 3 per week

■ **EET203 TESTING & CONDITION MONITORING**

HV testing: DC, 50 Hz, and impulse – equipment, measurement systems, standard test methods, certification and traceability, evaluation of test reports; HV test methods for insulators, bushings, circuit breakers, isolators and surge arrestors. Temperature rise testing of electrical equipment: lines cables, and switchgear. Current withstand testing; current interruption tests for fuses and circuit breakers. Evaluation of test reports – accuracy and traceability. Insulation testing: oil testing, DLA and PD tests. Condition monitoring systems: plant temperature, circuit breaker dynamics, insulation condition; in-situ methods.

Courses: EE82, EE60, EE78
Credit Points: 4 **Contact Hours:** 3 per week

■ **EET204 POWER SYSTEM LOAD FLOW ANALYSIS**

p.u. revision; Data collection methods; load flow algorithms: convergence criteria, multiple solutions, starting values, ordering and sparsity of matrices; single and three-phase models: transformers, tap changers, overhead transmission lines, underground cables, capacitors and filters, controlled reactive devices, generators and motors, load representation. Load flow applications: base case and contingency analysis in planning augmentation options, system operations contingency analysis; Load flow analysis methodology – use of load forecasts, establishment of 'base case'; Practice in analysis of transmission and distribution systems using an interactive package.

Courses: EE82, EE60, EE78
Credit Points: 4 **Contact Hours:** 3 per week

■ **EET205 POWER SYSTEM FAULT CALCULATIONS**

Representation of generators, lines, transformers in positive sequence equivalent circuits; balanced fault analysis; selection of source voltages from pre-fault conditions; unbalanced fault conditions; complete sequence representation of power system equipment: transformers, cables and lines (including mutual coupling of parallel lines); per unit positive, negative and zero sequence network diagrams; calculation of generator and transformer sequence equivalent circuits from manufacturer's test data; calculation of line sequence impedances from line layout and soil resistivity – inclusion of tower foot resistances in zero sequence models; residual currents in untransposed lines; interference with telecommunications circuits; short circuit calculations to AS3581 using an interactive computer package.

Courses: EE82, EE60, EE78 **Prerequisite:** EET204
Credit Points: 4 **Contact Hours:** 3 per week

■ **EET206 PROJECT MANAGEMENT**

Principles of project management and the operation of project management packages. Emphasis on the practical application of PC packages based on exercises related to the electricity supply industry and aimed at promoting the increased use of such packages by engineering and technical staff in the normal course of their work. Details include activity networks, Gantt charts, time schedules, analysis of critical path, types of resources, resource profiles, resource scheduling, project monitoring and reporting.

Courses: EE82, EE60, EE78
Credit Points: 4 **Contact Hours:** 3 per week

■ **EET207 OVERHEAD LINE ROUTE SELECTION – ENVIRONMENTAL FACTORS**

Overview of Legislation, Standards and Guides: radio interference, electromagnetic fields, low frequency induction, touch potentials, structure earthing, electrolytic

corrosion, clearances, land legislation, environmental impact statements. Current safety and environmental issues. Requirements of other public utilities – Telecom, Railways, roadworks, marine, water, gas, oil. Cost of environmental enhancements and alternative technologies. Right of way. Route selection principles: structure types, terrain shielding, identification of natural and man-made features.

Courses: EE82, EE60, EE78

Credit Points: 4 Contact Hours: 3 per week

■ EEP208 ECONOMIC ANALYSIS FOR POWER SYSTEM ENGINEERS

Principles of economic analysis for a tax paying entity. Various evaluation techniques are addressed including both discounted and non discounted techniques. The net present value approach is settled on as being the most appropriate approach. Issues such as the effect of interest and inflation on nominal cash flows are addressed. Cost benefit analysis for engineering decision making: econometric models for ESI, maintenance, refurbishment and replacement. Budgeting and cost control, budget preparation with spreadsheets, cash flows, monitoring expenditure and budget review, profit and loss and balance sheets. Risk analysis including WACC calculations, stochastic simulation and sensitivity.

Courses: EE82, EE60, EE78

Credit Points: 4 Contact Hours: 3 per week

■ EEP209 POWER SYSTEM HARMONICS

Generation of harmonics: converters, arc furnaces, SVC, inverters, electronic control: system response characteristics: resonance conditions, effect of load, typical system responses; effects of harmonics: motors, generators, power cables, capacitors, electronic equipment, metering, relaying, telephone interference; reactive power compensation and harmonic control: converter power factor, reactive power compensation, control of harmonic currents; measurement of harmonics; recommended practices including AS2279.

Courses: EE82, EE60, EE78 Prerequisite: EEP205

Credit Points: 4 Contact Hours: 3 per week

■ EEP210 ABNORMAL SYSTEM VOLTAGES

Supply quality standards: review of criteria, statutory requirements, emergency and short term limits; 50 Hz voltage: cause of voltage deviations, voltages during faults, motor starting; negative phase sequence voltages: AS1359 requirements, voltage unbalance studies, modelling, measurement; voltage transients and flicker: AS2279 requirements, disturbing loads, remedial measures, transient disturbances and power system plant; Power system transient analysis: ATP studies.

Courses: EE82, EE60, EE78 Prerequisite: EEP205

Credit Points: 4 Contact Hours: 3 per week

■ EEP211 BASIC POWER SYSTEM PROTECTION

Fundamental principles of power system protection. Relationships between various substation layouts and the protection system. Principles of CTs and VTs (including CVTs) and their specification. Principles of the various types of modern relays. Types of fuses available and their selection. Setting of basic systems of fuses, overcurrent relays and earth fault relays. Fundamental principles of distance relays and basic settings. Basic issues in workshop testing and field testing of relays and protection systems. Principles of reclosers and sectionalizers. Transformer protection schemes and settings of biased differential relays. Bus zone protection schemes and setting of high impedance differential relays. Pilot wire protection.

Courses: EE82, EE60, EE78

Prerequisites: EEP205

Credit Points: 4

Contact Hours: 3 per week

■ EEP212 ADVANCED POWER SYSTEM PROTECTION

Specification of current transformer (CT) to cope with fault currents that include an exponentially decaying transient DC component. Voltage transformer (VT) transient performance. Design and implementation of distance relay protection schemes. Specification and understanding of protection signalling schemes. Principles associated with feeder current differential protection. Advanced principles and setting of high impedance protection. Principles of protection of large generators together with the determination of selected generator protection relay settings. Protection of large motors together with the determination of motor protection relay settings. Principles associated with protection of high voltage capacitor banks together with the determination of capacitor bank protection relay settings. Overall principles of protection design and modern developments and trends with the application of protection to power systems.

Courses: EE82, EE60, EE78 Prerequisite: EEP211

Credit Points: 3 Contact Hours: 3 per week

■ EEP213 STATISTICS

The role of statistics in electricity supply engineering. Strategies for collecting and recording valid data from which statistical inferences can be made; use of operational and inventory data. Graphical and numerical techniques to summarise data using statistical or spreadsheet packages. Review of probability concepts, random variables, probability distributions. Specific distributions used in system and component reliability studies.

Courses: EE82, EE60, EE78

Credit Points: 4 Contact Hours: 3 per week

■ EEP214 RISK ASSESSMENT IN THE ELECTRICITY SUPPLY INDUSTRY

Identification of hazards: failure modes and effects analysis, failure modes effects and criticality analysis – outcomes from possible failure modes; Hazard and operability studies; Assessment of frequency – fault tree analysis, event tree analysis; Assessment of consequences: consequence analysis, criticality assessment in terms of chance of failure and consequences, incident scenario, damage criteria, damage identification; legal and economic consequences; case studies including identification of hazards, assessment of risks, and consequences in ESI. Loss of load models in generation.

Courses: EE82, EE60, EE78 Prerequisite: EEP215

Credit Points: 4 Contact Hours: 3 per week

■ EEP215 RELIABILITY

Basic reliability concepts. Reliability analysis methods. Reliability methods. Application of important distributions. Failure rate, repair time and mean time failure. Reliability of series, parallel and complex systems. Discrete Markov Chains. Continuous Markov processes. Frequency and duration in reliability. Application of Markov Chain in the reliability evaluation of repairable systems. Application of reliability evaluation in power distribution systems, inclusion of cost estimation. Reliability assessment in subtransmission system planning, including non-constant transition rate considerations. Study of single and double contingencies with switching to restore supply. Inclusion of maintenance in system modelling. Probability and frequency of loss of load. Unsupplied energy and average load at risk. Maximum load at risk. Average outage duration. Hours of Loss of load.

Courses: EE82, EE60, EE78 Prerequisite: EEP213

Credit Points: 4 Contact Hours: 3 per week

■ **EEP216 OVERHEAD LINE DESIGN – ELECTRICAL**

Electrical design of transmission lines with ratings of 33kV to 500kV; economic conductor size; characteristics of conductors; standard and new technology insulators; power frequency, impulse and switching flashover voltage, pollution and creepage, wet and dry flashover, mechanical characteristics; feasible structure types; tower footing resistance and counterpoise; Insulation coordination methodology; determination of overvoltage withstand, design for required outage; determination of RI using state of the art methods; design to ensure that electrostatic and electromagnetic fields do not exceed NH & MRC guidelines.

Courses: EE82, EE60, EE78

Prerequisites: EEP201, EEP202, EEP203, EEP205, EEP207, EEP210

Credit Points: 4 Contact Hours: 3 per week

■ **EEP217 OVERHEAD LINE DESIGN – MECHANICAL**

Conductor selection. Catenary theory. Sag-tension-temperature calculations. Requirements for survey data. Statutory and enterprise requirements for line layout: clearances, mechanical loading, safety criteria. Definition of loading conditions, structure capacities, layout clearances. Applied mechanics of strung conductors. Determination of everyday tensions from allowable stress or tension/mass ratio. Determination of vibration protection. Transmission line estimating techniques. Selection of structure type based on optimum capitalised costs. Line layout.

Courses: EE82, EE60, EE78

Prerequisites: EEP208, EEP216

Credit Points: 4 Contact Hours: 3 per week

■ **EEP218 INTRODUCTION TO AUTOMATED SYSTEM CONTROL & SUPERVISORY SYSTEMS**

SCADA fundamentals and protocols; SCADA equipment: master station, remote terminal units; transmission SCADA systems, distribution automation systems, distribution control systems, PC software applications; alarm philosophy and control principles: definition of system displays, data logging, database point processing and attributes, master station configuration; specification of MMI: identification of system functional requirements; computer system platforms: computer technology fundamentals, computer hardware – processors, peripherals, display, user interfaces; communication system principles, communications bearer fundamentals, data networks and protocols; data communications and I/O capacities and types, I/O processing; application of SCADA systems to transmission and distribution systems; cost/benefits of alternative schemes.

Courses: EE82, EE60, EE78

Credit Points: 4 Contact Hours: 3 per week

■ **EEP219 HIGH VOLTAGE SUBSTATION EQUIPMENT: POWER TRANSFORMERS & REACTIVE POWER PLANT**

Principles of power transformer design from distribution transformers to EHV transformers: ratings, windings, core structure and materials, insulation and cooling methods, insulation and lifetime; leakage and magnetising reactance; losses, harmonics and inrush currents; short circuit forces; tests to measure: ratio, losses, impedance, phasing, temperature rise, accuracy and traceability of tests, interpretation of test reports; surge phenomena in windings, RSG and impulse testing of power transformers, interpretation of test results; oil cooling systems; fire protection; tap changers and associated controls; analysis of transformer failure modes; In-phase and quad-boost regulators; series and shunt

reactors; reactors for harmonic filters; SVCs: design considerations, equipment characteristics and equipment characteristics.

Courses: EE82, EE60, EE78

Prerequisites: EEP202, EEP203

Credit Points: 4 Contact Hours: 3 per week

■ **EEP220 DISTRIBUTION PLANNING**

Identify data and techniques used in load forecasting. Examine typical distribution network problems and identify performance limitations based on standards. Relate network problems to different configurations and the effects on customers. Study network reinforcement options on a simulation package. Options include regulators, series and shunt capacitors and reconductoring. Consider the above options to address a realistic network problem assessing line losses and voltage results. Analyse network reliability and assess the impact of ties, switches and various network configurations. Compare alternatives based on economic and technical considerations. Prepare a logical case which recommends one option in the form of a report.

Courses: EE82, EE60, EE78

Prerequisites: EEP205, EEP208

Credit Points: 4 Contact Hours: 3 per week

■ **EEP221 LIMITS TO POWER SYSTEM STABILITY**

Time domain models and characteristics of synchronous machines; induction generator models; assessment of model bandwidth for use in dynamic studies; excitation system models, turbine governor models, boiler models, hydraulic system models; characteristics of load plant; evaluation of small signal adequacy by eigenvalue analysis; determination of modes of electromechanical and control systems; identification of modes with insufficient damping, eigenvalue participating states and eigenvectors; establishment of transfer evaluation of gains/phases at identified model frequencies; time domain dynamic simulations of power system operation; numerical models for prediction of large disturbance behaviour of interconnected power systems; stability of system under contingency and emergency conditions; stability improvement using: controlled reactive devices, special control systems, braking resistors, U/F load shedding, FACTS.

Courses: EE82, EE60, EE78 Prerequisite: EEP205

Credit Points: 4 Contact Hours: 3 per week

■ **EEP222 MAINTENANCE OF ELECTRICITY SUPPLY SYSTEMS**

Establishment of maintenance policies: review of failure rates, emergency spares, identification of maintenance liabilities, identification of critical success factors to minimise life cycle costs, approval and dissemination of policy, policy review; maintenance planning: identification of constraints, review of existing maintenance programs, establishment of plans for periodic actions, documentation of procedures, design of reporting procedures; data recording and analysis: registers of defects, design of data collection and reporting systems, preparation of control charts, computer systems, data base development; maintenance operations: identification of refurbishment needs, resource evaluations, design of work procedures, impact of Acts and regulations, identification of staff training needs, supervision, auditing of work practices; maintenance program evaluation: assessment against KPI, modification of programs to account for continuing defects and failures or to reflect changing technologies.

Courses: EE82, EE60, EE78

Prerequisites: EEP208, EEP215

Credit Points: 4 Contact Hours: 3 per week

■ EEP223 LOAD FORECASTING

Nature of load patterns; historical patterns, links between customers and loads and between energy and demand demographics; categories of DSM, costs of DSM options, benefits, and limitations to DSM; tariffs and their impact; impact of economic trends on demand growth; load manipulation; load forecast methods: data collection and availability, weather correction, interpreting data, synthesising missing data, developing load forecast data, developing alternative scenario load forecasts; establishment of base loads from: historical load data, customer load predictions, and other contributing factors; prediction of growth rates; generation of load forecasts.

Courses: EE82, EE60, EE78

Prerequisites: EEP208, EEP213

Credit Points: 4 **Contact Hours:** 3 per week

■ EEP224 POWER SYSTEM OPERATION

Frequency control and AGC under normal load conditions, operation under emergency and contingency conditions, black starting, load shedding philosophy; generation operation; contract fuel prices, variations, automatic generation control systems; analysis of power station operating costs; establishment of optimum operating costs; management of forced outages; management of resources to restore system to normal in minimum time, abnormality control to prevent plant damage and maintain personnel safety, logging and reporting of forced outages; coordination of planned outages including assessment of risks and contingency planning; control of reactive power and voltage levels under normal and abnormal conditions; load reduction – instantaneous, delayed and planned; maintenance of consumer services and records.

Courses: EE82, EE60, EE78

Prerequisites: EEP202, EEP212, EEP215, EEP218, EEP221, EEP223

Credit Points: 4 **Contact Hours:** 3 per week

■ EEP230 THESIS A

Students work in industry for 100 days of supervised practice. As part of this practical training, one or more linked topics are identified that are related to the work of the section in which the training is carried out. A Masters thesis is prepared describing results of studies done by the student during the practical training. It is expected that the thesis will demonstrate that students have a deep background knowledge of the topic, can apply advanced skills to formulation and solution of engineering problems, and have an understanding of the relationship of the work to the overall objectives of the workgroup. The thesis will be examined by internal and external examiners appointed by the University.

Course: EE78

Credit Points: 12 **Contact Hours:** 3 per week

■ EEP231 THESIS B

Work done in this unit and the related unit EEP230 is examined by submission of a single Masters thesis.

Course: EE78

Credit Points: 12 **Contact Hours:** 3 per week

■ EEP240 ORGANISATION & FINANCIAL MANAGEMENT OF THE ESI

Financial reporting, including profit and loss and balance sheet; interpretation of financial data and commercial practices with respect to various line items in financial reports; key performance indicators, the derivation, interpretation and pitfalls; financing arrangements; taxation issues that affect the industry including income tax, repairs, tax effect of depreciation and capital gains tax; various asset management issues including inventory and fixed assets; cost volume profit analysis including

breakeven, contribution margin and EBIT.

Courses: EE82, EE60, EE78

Credit Points: 4 **Contact Hours:** 3 per week

■ EEP242 EFFICIENT MARKETING & UTILISATION OF ELECTRICITY: DEMAND & SUPPLY SIDE SOLUTIONS

Assessment of future DSM options: state, national and international DSM programs assessed; local opportunities examined; impact of new and evolving technology; compare options and select for cost effectiveness, load impact and community acceptance; determination of avoidable costs: assessment of marginal cost of supply and identification of unavoidable and avoidable costs; survey of customer needs and wants; conducting market research; application of existing tariffs or development of new tariffs; planning and estimating market potential for DSM: comparison of options to develop the optimum plan to meet customer needs and supply authority requirements; economic comparison of DSM and SSM options for a specific project including combined options; design and implement DSM program: targets, resources, in-house or contract; monitoring program performance; assessment of DSM on local and system load forecasts.

Courses: EE82, EE60, EE78

Prerequisites: EEP208, EEP223, EEP241

Credit Points: 4 **Contact Hours:** 3 per week

■ EEP243 CONTRACT ADMINISTRATION

Categories of contracts: supply; supply, deliver and erect; performance guaranteed; services, e.g. maintenance; period for supply of stock items or services; general conditions of contract: terms of payment and security deposit; quality assurance procedures; retention conditions; special conditions of contract: delivery and penalties for delay; technical provisions; penalty/bonus for such factors as efficiency, performance, maintenance and reliability; pre-tender acceptance negotiation practice; evaluation of tenders: tender adjustments; determination of the lowest comparatively priced offer on a total capitalised cost basis which conforms with the specified technical and commercial requirements; tender acceptance; contract correspondence; drawings – standards, amendment; contract law, dispute resolving procedures; contract progress monitoring: approval of drawings and documents; approval of delivery, erection, site testing. Acceptance, takeover, maintenance period, retention provisions.

Courses: EE82, EE60, EE78

Prerequisites: EEP208

Credit Points: 4 **Contact Hours:** 3 per week

■ EEP244 CIRCUIT BREAKERS – SWITCHGEAR

Basic switching theory for the main circuit breaker types: SF₆, Vacuum, GIS, minimum oil, airbreak (11kV), bulk oil; characteristics and applications for these types at various voltage levels; circuit-breaking principles: interruption of load current, small inductive current, short-line faults and out-of-phase switching; TRV and ITRV concepts; direct and synthetic testing; technical specifications of circuit breakers: operating voltage; impulse withstand; rated current; interrupting capacity; switching duties; operating mechanisms – single or 3 pole; clearing time; environment; selection of circuit breakers: analysis of tenders on a whole of life basis; circuit breaker failures: failure modes for different types; catastrophic failures; category of failure – design, operating or maintenance cause; reliability; circuit breaker testing and condition monitoring; circuit breaker maintenance and refurbishment; emerging circuit breaker technology.

Courses: EE82, EE60, EE78

Prerequisites: EEP210

Credit Points: 4 **Contact Hours:** 3 per week

■ **EEP245 INTRODUCTION TO SUBSTATION DESIGN**

Preparation of design/site options: standard layouts (outdoor, indoor, GIS, package, single bus, 11/2 CB, etc.) – cost, site, reliability lead time and communication factors; estimating procedures; comparison of design/site options; whole of life cost comparison including capital and operative costs; environmental and public issues; identification of design parameters: voltages, ratings, protection, metering, SCADA, communication, operational – preparation of one-line diagram and general arrangement; design scope; review with other parties.

Courses: EE82, EE60, EE78

Prerequisites: EEP202, EEP219, EEP244

Credit Points: 4 **Contact Hours:** 3 per week

■ **EEP247 INTRODUCTION TO PLANT CONTROL IN INDUSTRY & POWER GENERATION**

Using power station control systems as an example: power station control systems and practices outlined; control system scope specification in which required functions are identified, staffing options established and planning stage costs evaluated; preparation of project control plan – system scope defined, equipment and interfaces required and functional requirements identified; establishment of plant monitoring, control and performance parameters – plant process, characteristics and functions; plant location and environment; field equipment specification; matching available equipment to meet requirements; specification issue and tender analysis; preparation of plant input/output database; design of user/machine interface; system integration, testing and commissioning; post-commissioning tuning.

Courses: EE82, EE60, EE78

Credit Points: 4 **Contact Hours:** 3 per week

■ **EEP300 RESEARCH PROJECT**

A computer engineering research project in the student's chosen field encompassing a literature search, design, hardware construction or writing of software, testing and publication of a thesis.

Courses: EE76

Credit Points: 48 **Contact Hours:** 168 hours total

■ **EEP301 PROJECT**

Students carry out research or development work on a mini-project in specified areas.

Courses: CE74, EE76

Credit Points: 12 **Contact Hours:** 3 per week

■ **EEP302 RESEARCH COMPONENT 1**

Research component of EEP101, EEP102, EEP104, EEP124, EEP127, EEP137.

Courses: CE74, EE76

Credit Points: 12 **Contact Hours:** 3 per week

■ **EEP303 RESEARCH COMPONENT 2**

Research component of EEP126, EEP127, EEP128, EEP135, EEP137 and maths elective.

Courses: CE74, EE76

Credit Points: 12 **Contact Hours:** 3 per week

■ **EFB001 BUILDING FINANCIAL MANAGEMENT I**

Commercial property financial management; the nature of accounts; capital structures, equity, liabilities and asset management; the role of taxation in financial decision-making; ownership; budgeting.

Courses: CN31, CN33

Credit Points: 12 **Contact Hours:** 2 per week

Incompatible with: FNB101

■ **EFB002 FINANCIAL MANAGEMENT FOR ENGINEERS**

Introduction to the theory and practice of financial man-

agement in Australia; the nature of business finance and firm objectives; business structures, debt and the organisation of the Australian capital markets; NPV calculations; project evaluation.

Courses: EE43, ME45, ME46

Credit Points: 8

Contact Hours: 2 per week

Incompatible with: FNB116

■ **EFB003 PERSONAL & CORPORATE FINANCE**

The Australian financial environment from both a personal and corporate point of view; goals and functions of finance; project evaluation; evaluation and selection of investment projects, management of working capital; leverage; cash forecasting and management; financial statement analysis.

Course: EE44

Credit Points: 4

Contact Hours: 2 per week

Incompatible with: FNB125; this unit is not available to BS50 BBus (Accy) or BBus (B&F) majors and BS56 BBus (Acc) or BBus (B&F) majors.

■ **EFB100 AUSTRALIAN ECONOMIC HISTORY**

The Australian economy and its economic institutions from the 1890s to World War II; analysis of postwar economic growth and fluctuations; arbitration, conciliation and wage fixation, immigration policy, capital inflow institutional arrangements; Australia's links with the international economy; trading agreements; the contribution of manufacturing, agriculture, minerals and energy, labour, investment and technology in historical context; Australia's deteriorating economic performance since the 1970s and the opportunities presented by the development of the Pacific Basin; the future for Australia.

Courses: BS50, ED50, NS48, BS56

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: EPB106

■ **EFB101 DATA ANALYSIS FOR BUSINESS**

This unit introduces students to the basic tools for the analysis of cross section and time series data. The major topics covered are a discussion of key features of published data, the calculation and meaning of descriptive measures of data, the concepts of sampling, sampling error and sampling distributions, hypothesis testing and regression analysis.

Courses: BS50, BS56

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: EPB109, EPB110

■ **EFB102 ECONOMICS II**

Consumer behaviour, the role of the government in market intervention and allocative efficiency are some of the fundamental issues in microeconomics addressed in this unit. Business cycles, 'booms and busts' and the related issue of macroeconomic stabilisation policy are important in policy debate in Australia today. Unemployment, its causes and cures, and the natural rate of unemployment are also important issues for most Western economies and will be discussed in an Australian context.

Courses: BS50, BS56

Prerequisites: BSB113 or EPB116

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: EPB172, EPB140 and EPB150 if both have been passed. Note students may enrol for this unit if they have studied but failed either EPB140 or EPB150.

■ **EFB103 MACROECONOMICS**

Macroeconomics is that part of economics primarily concerned with the relationships between broad economic aggregates. The most important of these include the level of GDP, aggregate expenditure and saving, the

level of employment, the quantity of money, the average price level, and the balance of payments. The aim of this unit is to define and analyse the relationships between these aggregates, and their impact upon the national economy. The unit examines the problems associated with inflation, unemployment and the balance of payments in the context of the Australian economy; the role of the government and the central bank discussed within the framework of an income-expenditure model; international trade and capital flows.

Courses: BS50, ED50, IF31, IF37, IF52, IF54, IS43, IT20, NS48, PU48, BS56, IF40

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPB172, BSB113, EFB102, EPB116, EPB140

■ EFB104 MICROECONOMICS

The nature of the economic problem and the economic way of thinking; the theory of consumer behaviour, the nature of demand, preference and indifference theory; the nature of supply, the price mechanism and the operation of the market; short and long run costs; profit maximisation, market structure, factor markets and market failure.

Courses: BS50, BS56, ED50, IF31, IF37, IF40, IF52, IF54, IS43, IT20, NS48, PU48

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: BSB113, EFB102, EPB116, EPB172, EPB150

■ EFB105 RESEARCH AND SURVEY METHODS

This unit deals with data (primary and secondary): the gathering of data via surveys, the understanding of data through the study of statistics and the analysis of data; Australian statistical information; demographic processes: the presentation of quantitative as well as qualitative data; questionnaire construction; how to conduct surveys; sampling design; sample accuracy; sample size; confidence intervals; hypothesis testing plus an introduction to correlation, regression and time series analysis. Computer work involves SPSS.

Courses: BS50, BS56, ED50, PU48

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPB163

■ EFB200 APPLIED REGRESSION ANALYSIS

This unit builds on the basic multiple regression model introduced in EFB101, by examining the practical problems encountered in using the single equation econometric model. In particular, the major problems encountered using real data, such as multicollinearity, serial correlation in time series data and heteroskedasticity in the case of cross section data, specification error, and alternative functional form issues will be illustrated in the context of published Australian data. The unit includes extensive use of a commonly used computer package to allow the practical application of the various techniques.

Courses: BS50, BS56

Prerequisites: EFB101 or EPB110

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPB102

■ EFB201 AUSTRALIAN FINANCIAL MARKETS

System efficiency and the intermediation process; term structure of interest rates; the Australian banking and payments system; merchant bank and finance company operations; the operations of the Australian Stock Exchange; financial systems regulation; trade and pricing of money market/capital market securities; the options and futures market.

Course: BS50

Prerequisites: BSB113 or EPB140, and FNN102 or FNB107 or FNB111 or EFN406 or EFB206 or EFB210

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: FNB100

■ EFB202 BUSINESS CYCLES & ECONOMIC GROWTH

The unit develops an analytical framework in order to evaluate the macroeconomic performance of the Australian economy and the policy actions taken by government. Key issues addressed include business cycle stabilisation, unemployment, inflation; economic growth; the foreign debt; budget deficits; and national saving.

Courses: BS50, BS56

Prerequisite: EFB102 or EPB140 or EPN102 or EPB172

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPB142

■ EFB203 BUSINESS FORECASTING

This unit covers a wide range of forecasting methods which may be of use in forecasting business variables. The focus of the unit is single equation and time series modelling techniques. Smoothing models, including exponential and Winters smoothing, are the simplest of a wide range of forecasting models available to business. This unit takes these as the starting point. The classical decomposition approach to forecasting will be used to show how components of a time series may be extracted and used in forecasting. The more sophisticated ARIMA models will then be discussed in detail. Students will also be introduced to methods by which to evaluate model performance, and to compare and combine different forecasting techniques.

Course: BS50, BS56

Prerequisites: EFB200 or EPB102

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPB107

■ EFB204 COMPARATIVE ECONOMIC SYSTEMS

The study of comparative economic systems; methods of comparison; structural dimensions as systemic factors; socio-political settings and economic systems; capitalism and its critics; central planning; administrative decentralisation; the role of the state in the market economy; failure of soviet planning; socialist economic reforms; transition to a market economy; structural change and economic development.

Courses: BS50, BS56, ED50

Prerequisites: EPB140 and EPB150 or EPB172 or EFB102 or EPN102

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPB111

■ EFB205 COMPARATIVE FINANCIAL SYSTEMS

Introduction to the operations of important overseas capital markets, regulation and structure.

Course: BS50 **Prerequisite:** FNB100 or EFB201

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: FNB103

■ EFB206 CORPORATE FINANCE

An overview of the Australian financial system; technical tools used in financial decision making; the capital market, short and long-term finance; dividend policy; investment decision models.

Courses: BS50, ED50, IF56

Prerequisite: AYB100 or AYB110 or BSB110

Credit Points: 12 **Contact Hours:** 4 per week
Incompatible with: FNB111, FNB107

■ EFB207 DEVELOPMENT OF ECONOMIC THOUGHT

This unit is especially recommended for students wishing to study economics at a higher level. It traces the evolution of economic thought over time, and evaluates the contributions of key figures such as Adam Smith, David Ricardo, J.S. Mill, Karl Marx and others. Importantly, the unit reflects on the lessons of the past within the context of the economic policies currently favoured by governments in Australia and elsewhere in the world.

Courses: BS50, BS56

Prerequisites: EFB102 or EPB140 and EPB150 or EPB172 or EPN102

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPB127

■ EFB208 ECONOMIC ANALYSIS & POLICY

Theoretical constructs of welfare economics and cost-benefit analysis; economic rationales for government policy in major areas including: the environment; resource depletion; public investment; taxation; federal fiscal relations; education finance; income distribution; industry.

Course: ED50

Prerequisites: EPB140 and EPB150 or EPB172 or EFB102 or EPN102

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPB151 and EPB152 and EFB211 and EPB171

■ EFB209 ENVIRONMENTAL ECONOMICS: ISSUES & POLICY

This unit provides an introduction to the foundations of environmental and natural resource economics, and examines the increasingly important role of economics in the formulation and implementation of environmental policy. Topics include: sustainable development, market failure, pollution and depletion of natural resources and analysis of environmental policy.

Courses: BS50, BS56

Prerequisite: EFB102 or EPB150 or EPB140 or EPB116

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPB165

■ EFB210 FINANCE I

An introduction to the Australian institutional framework; terminology; debt and equity instruments. Financial mathematics applied to the pricing of debt and equity securities. A firm's investment decision; Net Present Value (NPV) and Internal Rate of Return (IRR); introduction to risk and uncertainty; Capital Asset Pricing Model (CAPM) and Weighted Average Cost of Capital (WACC).

Courses: BS50, BS56, IF37, IF40

Prerequisites: AYB110 or AYB100 or BSB110 and EPB150 or EPB116 or BSB113

Credit Points: 12 **Contact Hours:** 4 per week
Incompatible with: FNB107, FNB111

■ EFB211 FIRMS, MARKETS & RESOURCES

This unit refines and extends introductory microeconomic concepts and applies them to business decision making, the design and evaluation of public policy and to a general appreciation of the economic aspects of a modern mixed economy. It extends and refines the theoretical framework of microeconomics. It then investigates market failure, the role of government and the appropriate response of business.

Courses: BS50, BS56

Prerequisites: EFB102
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPB152

■ EFB212 INTERNATIONAL TRADE & FINANCE

Surveys international trade and finance with an empha-

sis on current economic policy issues; the theories of trade and the bases, direction, volume and terms of trade; trade policy and economic welfare; tariffs and trade; FATT; industry policy; economic integration: EC, NAFTA, APEC, ASEAN; balance of payments; alternative exchange rate regimes; foreign exchange markets and risk management using futures and options; Eurocurrency markets; international money reform. This unit is not available to students undertaking the Economics primary major.

Courses: BS50, ED50

Prerequisites: EFB102 or EPB140 and EPB150 or EPB172 or EPN102

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPB132

■ EFB213 INTRODUCTION TO ANALYTICAL TECHNIQUES FOR BUSINESS

This unit introduces students to a range of modelling procedures which can be applied to assist business in decision making under uncertainty. Inventory analysis is important to minimise storage costs. The efficient scheduling of tasks, also vital for cost effectiveness, is addressed using PERT/CPM techniques. The problem of optimal resource allocation is explored using linear programming, including integer linear programming. Queuing models will also address the issue of optimal planning and use of resources. An introduction to decision theory is also included. The use of computers allows the student to concentrate on the applications of these techniques and their interpretation and to recognise the strengths and weaknesses of these models.

Courses: BS50, BS56

Prerequisite: EFB101 or EPB109 or EPB110

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPB104

■ EFB214 MATHEMATICAL ECONOMIC APPLICATIONS

Differential calculus; rules of differentiation; comparative statistics; implicit function theorem with applications to market equilibrium models; classical optimisation; Lagrangian method with equality constraints; Kuhn-Tucker's method with inequality constraints; second order conditions for optimisation with Hessian determinants economic dynamic and integral calculus: differential equations and difference equations with applications to growth and trade cycles.

Courses: BS50, BS56

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPB144

■ EFB215 MONETARY THEORY & POLICY

The historical evolution of contemporary monetary theories; the role of money in affecting output, inflation and the balance of payments; recent approaches to monetary policy in the Australian context; and the role of the Reserve Bank in interpreting theory and giving effect to policy.

Courses: BS50, BS56

Prerequisites: EPB140 and EPB150 or EPB172 or EFB102 or EPN102

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPB153

■ EFB216 SPECIAL TOPIC – ECONOMICS

This unit provides the opportunity for the student to examine in detail a specific current economic policy issue. The nature of the unit varies from year to year depending upon policy questions and the interests of the staff. Contact the Subject Area Coordinator of Economics and Public Policy for further details.

Courses: BS50, BS56

Credit Points: 12 **Contact Hours:** 3 per week

■ EFB217 TRANSPORT & COMMUNICATION ECONOMICS

The application of microeconomic principles to transport and communication; location decision, demand, costs, pricing, investment principles, regulation, issues and policy.

Courses: BS50, BS56

Prerequisites: EPB140 and EPB150 or EPB172 or EFB102 or EPN102

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPB168

■ EFB300 ADVANCED ECONOMIC THEORY & POLICY

The foundations of economic thought and recent contributions to the literature of micro and macro theory and policy; their relevance for public and private decision making in the Australian context.

Courses: BS50, BS56, ED50

Prerequisite: EPB142 and EPB152 or EFB211 and EFB202

Credit Points: 12 **Contact Hours:** 3 per week

■ EFB301 ADVANCED LENDING

This unit introduces students to advanced aspects of security evaluation and the assessment of debt servicing capacity; the analysis of 'exotic' types of corporate loans; and rescheduling of sovereign debt.

Courses: BS50, BS56

Prerequisite: FNB111 or EFB210

Credit Points: 12 **Contact Hours:** 3 per week

■ EFB302 ADVANCED MACROECONOMICS

The unit covers all the major modern theoretical and policy macroeconomic debates in depth. Issues covered will draw from: the Neoclassical/Keynesian synthesis, Monetarism, New Classical economics, new Keynesianism, real business cycle theories, theories of unemployment hysteresis, theories of consumption and investment, alternative open economy models of macroeconomic policy, macroeconomic forecasting, advanced aspects of monetary and fiscal policy, growth models and modern endogenous growth theory.

Courses: BS50, BS56

Prerequisites: EFB202 or EPB142

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPB101

■ EFB303 ADVANCED MICROECONOMICS

This unit will add to and further develop the theories and issues studied in EFB211 and will introduce additional advanced practical applications.

Course: BS50, BS56

Prerequisites: EFB211 or EPB152

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPB101

■ EFB304 APPLIED ECONOMETRIC TECHNIQUES

This unit progresses from EFB200, extending the student's knowledge to topics in applied econometrics. Single equation issues addressed include errors in variables, distributed lag models and causality testing. Recent developments in time series econometrics are examined in the context of the problem of nonstationarity of time series data. The identification of and estimation techniques used in simultaneous equation models are also covered in this unit. The application of these econometric techniques are illustrated in the context of economic modelling.

Courses: BS50, BS56

Prerequisite: EFB200 or EPB102

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPB103

■ EFB305 CURRENT ECONOMIC POLICY CHALLENGES

This is a 'capstone' unit which harnesses the foundational skills developed in previous units of the Economics major in order to illustrate the application of economic analysis to key policy problems through the in-depth consideration of selected topical issues. The selection of issues will be flexible and subject to continuous review in order to ensure relevance. Approximately four issues will be selected, and each treated in some depth. An indicative list of issues which could be explored in the current circumstances is: the national savings debate, economic solutions to environmental problems, the debate around a goods and services tax, the issue of regulation versus deregulation of the labour market.

Courses: BS50, BS56

Prerequisites: EFB211 and EFB202 or EPB141 and EPB151

Credit Points: 12 **Contact Hours:** 3 per week

■ EFB306 ECONOMIC MODEL BUILDING

Model specification and theory formulation; investigating the model characteristics and the underlying assumptions of convexity, concavity and regularity; theoretical appraisal of single and simultaneous equation model building and audit usefulness in pacifying and solving economic issues and problems.

Courses: BS50, BS56

Prerequisites: EPB104 or EFB213 and EPB140 and EPB150 or EPB172, or EFB102 or EPN102 or EFN405
Incompatible with: EPB115

Credit Points: 12 **Contact Hours:** 3 per week

■ EFB307 FINANCE II

Theoretical development of the CAPM model, its practical application and its relationship to efficient market hypothesis. Capital structure, dividends, short-term assets, leasing, takeovers, options and futures.

Courses: BS50, BS56, IF37, IF40

Prerequisites: FNB111, EFB210

Credit Points: 12 **Contact Hours:** 4 per week
Incompatible with: FNB112

■ EFB308 FINANCE III

A study of contemporary finance research; event research; beta estimation; valuation theory; use of finance research tools; anomalies and extension of finance theories; students are required to complete a research project combining theory and practice.

Courses: BS50, BS56

Prerequisites: FNB112, EFB307

Credit Points: 12 **Contact Hours:** 4 per week
Incompatible with: FNB113

■ EFB309 FINANCIAL DERIVATIVES

This unit extends students' knowledge of financial derivatives, to encompass exotic trading strategies in options, futures and physical instruments; option replication strategies; modifications to the basic option theory, to account for firm capitalisation changes (e.g. bonus shares); designer options; and option pricing models, other than the standard Black-Scholes OPM studied in EFB307.

Courses: BS50, BS56

Prerequisites: FNB112, EFB307

Credit Points: 12 **Contact Hours:** 3 per week

■ EFB310 FINANCIAL INSTITUTIONS – CONTROL

This subject is designed to familiarise students with the management considerations of a financial institution, particularly from a financial management perspective. Students will gain an understanding of the relevance of both financial management and managerial accounting

within the financial institution.

Courses: BS50, BS56, IF40

Prerequisites: FNB111 or FNB107

Credit Points: 12 **Contact Hours:** 4 per week

Incompatible with: FNB124, FNB115

■ EFB311 FINANCIAL INSTITUTIONS – LENDING

Finance theory and the lending function; cost of bank funds; the evaluation of retail loans, lending to small business; financial statement analysis; corporate lending and securities; financing international trade; problem loans and credit scoring.

Courses: BS50, BS56, IF40

Prerequisites: FNB107 or FNB111 or FNN102 or EPB201

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: FNB114

■ EFB312 INTERNATIONAL FINANCE & ECONOMICS

To examine the theory and practice of international finance, including the mechanics and uses of the spot, forward, swap, futures and options markets in foreign exchange; the relationship between domestic and international capital markets; interest rate and exchange rate determination; risk management of foreign exchange; international trade finance; evaluation of offshore investment (including country risk).

Courses: BS50, BS56

Prerequisites: FNB111 or FNB107 or EFB210 or EFB206

Credit Points: 12 **Contact Hours:** 4 per week

Incompatible with: FNB120, EPB130, EFB314

■ EFB313 INTERNATIONAL MACROECONOMICS

This unit deals with the various theoretical and policy approaches to the macroeconomy as they are pursued in different countries. It examines the comparative macroeconomic performance in different countries over time, the distinction between interventionist and laissez-faire policies, as well as the differences in traditions and approaches between English speaking and non-English speaking countries.

Course: BS50, BS56

Prerequisites: EFB302

Credit Points: 12 **Contact Hours:** 3 per week

■ EFB314 INTERNATIONAL TRADE & ECONOMIC COMPETITIVENESS

The unit analyses the increasing globalisation of world trade and finance, and develops an analytical framework to assess the impact of these flows on the Australian economy, its businesses and its policy makers. It examines trade and capital flows, exchange rate determination, and the impact of these external variables upon domestic interest rates, prices and levels of activity.

Courses: BS50, BS56

Prerequisites: EFB211 and EFB202 or EPB142 and EPB152

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: EPB130 and EPB132 and EFB312

■ EFB315 ISSUES IN FINANCE

The finance framework; positive versus normative methods; Kuhn's model of progress; the resolution of traditional finance problems; regulation and finance, market failure: the finance solution.

Courses: BS50, BS56, IF40

Prerequisites: FNB111, FNB123 or EFB210, AYB225

Credit Points: 12 **Contact Hours:** 4 per week

Incompatible with: FNB121

■ EFB316 LABOUR ECONOMICS

This unit applies analytical tools acquired from the preceding units to investigate specific market applications

both at the micro and macro levels. Topics include: the demand and supply of labour, investment in human capital; market structures and their effect on equilibrium wage levels; job search; discrimination; collective bargaining; minimum wages; enterprise bargaining; unemployment; inflation; the Philips Curve in Australia.

Courses: BS50, BS56

Prerequisites: EPB142 and EPB152 or EFB211 and EFB202

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: EPB134

■ EFB317 MICROECONOMIC REFORM

This unit applies the principles of welfare economics (applied microeconomic theory) to case studies of microeconomic reform in practice. Issues which are examined, include regulation, and the corporatisation and privatisation of key industries, such as transport, communications, electricity generation and distribution, and water supply.

Courses: BS50, BS56

Prerequisite: EFB211

Credit Points: 12 **Contact Hours:** 3 per week

■ EFB318 PORTFOLIO & SECURITY ANALYSIS

Management of investment portfolios; diversification; performance management; risk management; advanced theories on option pricing, efficient markets, futures trading (hedging) and asset pricing.

Courses: BS50, BS56, IF40

Prerequisite: FNB112 or FNN102 or EFB307

Credit Points: 12 **Contact Hours:** 4 per week

Incompatible with: FNB126

■ EFB319 PUBLIC SECTOR ECONOMICS

The reasons for government intervention in the economy; the ways in which the effectiveness of this intervention may be measured. Topics include: the competing goals of efficiency and equity; theories of first-best and second-best; the importance of externalities; the public goods controversy; privatisation, deregulation and re-regulation; alternative ways of financing government expenditure; and issues in public sector accounting.

Courses: BS50, BS56

Prerequisite: EPB152, or EFB211

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: EPB160

■ EFB320 PERSONAL FINANCIAL PLANNING

This unit extends students' knowledge of financial planning, to encompass the main personal finance products offered in practice. The unit introduces discussion of such key areas as superannuation (including rollovers and annuities), insurance, wills and estate planning, pensions and unemployment benefits.

Courses: BS50, BS56

Prerequisite: FNB111 or EFB210 or FNB107 or EFB206

Credit Points: 12 **Contact Hours:** 3 per week

■ EFN400 ADVANCED CAPITAL BUDGETING

Application of the theoretical constructs developed in undergraduate finance units to complex problems in investment appraisal.

Courses: BS75, BS87

Prerequisite: FNB112 or EFB307

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: FNN100

■ EFN401 ADVANCED FINANCIAL INSTITUTIONS MANAGEMENT

The study of current technical issues facing managers of financial institutions including an examination of theoretical framework for the analysis of the function and operation of the modern financial institution. Topics in-

clude strategic management, evolution of the Australian financial market place, issues associated with regulation.

Courses: BS70, BS94

Prerequisites: Undergraduate degree with a major in Economics or Finance

Credit Points: 12

Contact Hours: 3 per week

■ EFN402 ECONOMIC ANALYSIS

Australia's international trading performance relative to other industrialised nations; the potential economic impact on quality control systems on primary, secondary and tertiary sections of Australian industry; economics of the firm and the quality factor, quality as a determinant of demand, demand elasticity, goods attribute theory; tools for incorporating quality into investment decisions; opportunity and marginal costs; x inefficiency; increased profitability resulting from quality initiatives.

Courses: BS77, BS83, IF66, IF69

Credit Points: 6

Contact Hours: 3 per week

Incompatible with: EPP101

■ EFN403 ECONOMICS & PUBLIC POLICY

The relationship between economics, economists and public policy; currently influential bodies of economic theory, and their application in the public policy environment; the role of economists in the policy process. Topics addressed cover both the macro and micro dimensions of economic policy and include: the balance of payments and foreign debt; employment and unemployment; taxation; privatisation; health policy; social and welfare policy; environmental policy.

Courses: BS62, BS78, BS81, BS83, IF64, GS81, GS70, BS30

Prerequisite: An undergraduate degree or equivalent

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: EPN117

■ EFN404 ENVIRONMENTAL ECONOMICS & POLICY

Environmental economics is concerned with the interaction between economic systems and the natural environment. Fundamental issues are sustainable economic development, the economic cost to future generations of potential degradation of the environment, the proper definition of property rights, the economics of pollution and the depletion of non-renewable resource stocks. This unit provides a comprehensive analysis and critique of the role played by environmental economics in the formulation of contemporary environmental policy in Australia and globally.

Courses: BS62, BS81, BS83, IF64, GS81, GS70, BS30

Prerequisite: An undergraduate degree

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: EPN115 and EFB209

■ EFN405 MANAGERIAL ECONOMICS

Managerial decision making in an economic environment; an introduction to economics, demand analysis, cost analysis, market strategy and the macroeconomic environment; problems of resource allocation at the firm, in industry and the economy; completion of an industry study by each student, and an analysis of the Commonwealth Budget strategy.

Courses: BS78, BS81

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: GSN203, EPN102

■ EFN406 MANAGERIAL FINANCE

Introduction to the world of finance and financial management. Topics include: the finance function, the role of the financial manager; the Australian financial environment; sources of funds; present and future value; time value of money; financial mathematics; cost of funds, the firm investment decision; investment evaluation techniques; cash budgeting; working capital management;

capital budgeting; dividend policy and financial structure policy.

Courses: BS81

Prerequisites: AYN101, AYN112, or AYN403, AYN416

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: FNN102

■ EFN407 MULTIVARIATE METHODS

This unit is intended to provide students with the skills needed to perform appropriate analysis of data. It focuses upon some of the more important multivariate methods, of which multiple regression is but a part. Other multivariate techniques covered include discriminant analysis, principal component analysis and factor analysis. The link between appropriate multivariate statistics and a research question is thoroughly investigated.

Courses: BS60, BS61, BS62, BS83

Prerequisites: EPB110, EFB101 or equivalent

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: EPN112

■ EFN408 SPECIAL TOPIC – ECONOMICS, BANKING AND FINANCE

This unit provides the opportunity to study in detail, at a postgraduate level, specific current issues relating to economics, banking or finance. The nature of the unit varies from year to year depending upon contemporary issues and the interests of staff. Contact the Head of School, School of Economics and Finance for further information.

Courses: BS78, BS81

Prerequisite: An undergraduate degree with a major in Economics or Finance

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: EPN116

■ EFN409 STATISTICAL METHODS

Statistics is the study of the procedures for collecting, analysing and interpreting the data required for effective decision making; the basic concepts and techniques of statistical analysis, with particular reference to their application in management. Campus computers may be used. Topics include: graphs, charts, descriptive statistics, probability, sampling methods, analysis of sample results and regression and correlation.

Courses: BS81, GS81, GS70, BS30

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: EPN105

■ EFN500 CONTEMPORARY MACROECONOMIC THEORIES

This unit introduces students to the latest theoretical developments in the field of macroeconomics using both qualitative and quantitative approaches. It places these theories in their historical, philosophical and societal contexts. This unit looks at New Classical and New Keynesian theoretical approaches to a range of issues. These include: expectation theories, supply side economics, theories of labour markets, monetary theories and growth theories (including the role of international trade). Also differences in the theoretical foundations of macroeconomic policies employed in different countries are highlighted.

Courses: BS62, BS83, IF64, GS80, GS70, BS30

Prerequisites: An undergraduate Economics degree or major in Economics or Finance

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: EPN111

■ EFN501 CORPORATE AND COMMERCIAL LENDING

The study of advanced lending issues and structures for commercial applications. Examination of procedures for analysis of specialist lending; credit rating, leasing structures, venture finance.

Course: GS80

Prerequisites: Undergraduate degree with a major in Economics or Finance

Credit Points: 12 **Contact Hours:** 3 per week

■ **EFN502 DEVELOPMENTS IN MICROECONOMIC THEORIES**

Discussion of refinements in microeconomic theory such as hedonic pricing models, invalid preference theory, contestable market theory, theories of regulation, strategic entry deterrence, networks and vertical integration theories, and public utility theories are considered in this unit. It explores refinements in microeconomic theory which have contemporary use in the development of government policies in areas such as the environment, energy, public enterprises, industrial development, transport and telecommunications.

Courses: BS62, BS83, IF64, GS80

Prerequisite: An undergraduate degree or major in Economics or Finance

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: EPN108

■ **EFN503 ECONOMIC AND FINANCIAL MODELLING**

This unit is designed to introduce students to spreadsheet and other forms of modelling techniques which are frequently used in a business and financial environment. Modelling is used as an aid to decision making, as a means of forecasting important variables and as a planning and analysis tool. Various modelling exercises are used to illustrate the use of these modelling techniques in an economic and financial context.

Courses: BS70, BS94

Prerequisites: Undergraduate degree with a major in Economics or Finance

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: FNN103

■ **EFN504 FINANCE HONOURS**

An advanced coverage of the theory of financial management, building on work done in the undergraduate course with reference to empirical evidence where available; topics include; capital markets, investment decisions, market equilibrium, the capital asset pricing model, arbitrage pricing theory, capital structure, dividend policy, efficient capital markets; provides a theoretical basic allowing for evaluating policy problems in the area of financial management, a prerequisite for further specialisation in this area.

Courses: BS60, BS70, BS81, BS87

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: FNN101

■ **EFN505 FINANCIAL RISK MANAGEMENT**

An advanced postgraduate finance unit which covers four areas of risk management; portfolio, investment, exchange and insurance. Topics include: portfolio theory, performance evaluation, benchmark problems, hedging, portfolio insurance in the crash of 1987, managing exchange risk, risk reduction, self-insurance, new tax rules and superannation fund performance, interest rate risk, rating agencies, duration, immunisation. Emphasis is on empirical research.

Courses: BS70, BS87, IF64

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: FNN104

■ **EFN506 INTERNATIONAL FINANCE**

The theory and practice of international finance, the relationship between domestic and international capital markets, interest rate and exchange rate determination, risk management, foreign exchange, international trade finance, offshore investment, legislation, transfer pricing, accounting and taxation aspects.

Courses: BS70, BS87, IF64

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: FNN105

An introduction to geological materials, emphasising chemical concepts and processes. Aspects studied include the origin and constitution of the earth, introductory mineralogy, igneous, sedimentary and metamorphic petrology, study of physical and structural geology, geomorphology, stratigraphy and economic geology.

Courses: SC10, SC12 **Credit Points:** 8

■ **ESB122 PHYSICAL GEOLOGY**

Basic geologic principles, physical geology, geomorphology, weathering, erosion, river and coastal environments, groundwater, deserts and aeolian processes. Origin and composition of the earth and the solar system; mineralogy; classification and origin of igneous, metamorphic and sedimentary rocks; structural geology; plate tectonics; economic geology. Practical work includes examination and identification of major rock-forming minerals, economic minerals and rocks; structural exercises; interpretation of topographic and geologic maps and aerial photographs. Field excursions to local areas of geological interest.

Courses: ED50, SC30

Credit Points: 12 **Contact Hours:** 5 per week

■ **ESB222 HISTORICAL GEOLOGY**

Geologic history of the earth; interpretation of past geologic events emphasising the geologic development of Australia and the evolution of life; principles of stratigraphy; radiometric dating; palaeontology and biostratigraphy. Practical work includes stratigraphic interpretations, study of fossils and map interpretation. Field excursions to local areas of interest.

Courses: ED50, SC30

Credit Points: 12 **Contact Hours:** 5 per week

■ **ESB229 GEOLOGY FOR THE BUILT ENVIRONMENT**

Basic principles and theories of geology, emphasising the way in which mineralogy and petrology, geologic structures, geomorphology and groundwater interact with, and are related to, surveying, and engineering design and construction. The engineering properties of rock and soil, and the effect of geologic hazards on the built environment; case histories on the relevance of geology to the surveyor's and civil engineer's workplace.

Courses: CE42, IF52, PS47

Credit Points: 6 **Contact Hours:** 2 per week

■ **ESB312 MINERALOGY**

Introductory crystallography; fundamentals of crystal chemistry, mineral stability and reactions; crystallisation, growth and habit; the geologic context of minerals; classification of minerals; systematic treatment of the physical, chemical and structural properties of minerals; techniques of mineral analysis; theory and identification of minerals in transmitted light; the introduction to mineralogy with theory of reflected light; optical properties of ore minerals and identification of minerals in thin section, polished section and grain mounts.

Courses: ED50, SC30

Credit Points: 12 **Contact Hours:** 5 per week

■ **ESB332 GEOPHYSICS**

Physical properties of the earth; geophysical methods including: seismic, gravity, magnetic, radiometric, resistivity, induced polarisation, electromagnetic; electrical properties of rocks and minerals; natural electrical sources. The unit covers both solid earth and exploration aspects.

Courses: ED50, SC30

Prerequisites: One unit of maths or physics

Corequisite: ESB392

Credit Points: 12 **Contact Hours:** 5 per week

■ **ESB342 STRUCTURAL GEOLOGY AND GEOMECHANICS**

The geometry of map-scale structures. Principles of deformation: strain and rigid motion, measurements of strain in deformed rocks, deformation paths, strain rate, homogeneous and non-homogeneous strain, normal and shear stress, Mohr diagram. Deformation mechanisms: elastic and thermal expansion, plastic deformation within crystals, flow by pressure solution, compaction, stress-strain relations. Fracture and brittle behaviour: the Mohr envelope, role of cracks and fluid in the fracture of rocks, fracture experiments, effects of pre-existing fractures, fracture of anisotropic rocks, brittle-plastic transition. Classes of structures: joints origin, surface morphology and relation to other structures; faults normal, strike-slip, thrust and detachment faults; folds description and classification, kink bands, chevron folds, boudinage, mechanisms and mechanics. Practical work includes a series of assignments of increasing complexity, and field work involves mapping deformed terrain.

Courses: ED50, SC30

Prerequisites: ESB122, ESB222

Corequisite: ESB392

Credit Points: 12 **Contact Hours:** 5 per week

■ **ESB392 FIELD TECHNIQUES AND STUDIES**

Methods used in the accumulation, analysis and interpretation of geological field data. Geological mapping, sampling and presentation of reports. This unit includes an extended excursion (five days or more), during which students are required (individually or in groups) to map the geology of an assigned area. During the field excursion, students are required to produce a geological map, together with supporting explanatory notes. Other weekend excursions to areas of geological interest may be included.

Courses: ED50, SC30

Prerequisites: ESB122, ESB222

Credit Points: 12 **Contact Hours:** 5 per week

■ **ESB432 GEOMORPHOLOGY AND SEDIMENTARY GEOLOGY**

Introduction to geomorphic systems, processes and landforms; regolith, weathering, effects of climate and subsidence; drainage systems and river processes; volcanic terrains, volcanic hazards and volcanism monitoring; type and distribution of marine sediments; the sedimentary cycle and sediment transport; sedimentary structures, sediment textures, grain size analysis; depositional environments; fossiliferous sediments and microfossils; an introduction to biostratigraphy and basin analysis.

Courses: ED50, SC30

Prerequisites: ESB122, ESB222, plus one unit of first-year chemistry

Credit Points: 12 **Contact Hours:** 5 per week

■ **ESB452 GEOCHEMISTRY**

An introduction to the chemistry of the earth as a whole and of its component parts. Origin and distribution of the elements within the universe, the solar system, and the earth. Elemental associations, primary differentiation and geochemical classification. Crystal chemistry, nature of solids, bonding forces, covalent and ionic radii, crystal structures, unit cell composition, solid solution. Introduction to thermodynamics, including equilibrium and equilibrium constants, chemical potential, fugacity, activity, the phase rule and phase diagrams. Isotope geochemistry. The geochemistry of aqueous environments, water chemistry, properties of water, solutions and solubilities, pH, oxidation and reduction, water reactions. Presentation of geochemical data. Practi-

cal aspects include experience in geochemical methodology, from sample collection in the field through analytical methods appropriate to geology (ICP, electron microprobe, XRD, AAS).

Course: SC30

Prerequisites: ESB312, CHB182, CHB282

Credit Points: 12 **Contact Hours:** 5 per week

■ **ESB462 LITHOLOGY**

Optical mineralogy; the description and classification of igneous, metamorphic and sedimentary rocks in thin section and hand specimen; the identification, classification and interpretation of textures. A field study of one day's duration is required.

Courses: ED50, SC30

Prerequisite: ESB312

Corequisite: ESB432

Credit Points: 12 **Contact Hours:** 5 per week

■ **ESB472 MINERAL DEPOSITS AND MINE GEOLOGY**

Ore concentration mechanisms according to classical and modern ore genesis theory. The different types of economic materials are then studied under the following headings: mineralogy, genesis, use and value, mining methods, beneficiation, major overseas deposits, Australian deposits. The role of the mine geologist. Practical work includes studies of economic minerals, and exercises in interpretation of mine data.

Course: SC30

Prerequisite: ESB312

Credit Points: 12 **Contact Hours:** 5 per week

■ **ESB512 IGNEOUS AND METAMORPHIC PETROLOGY**

The origin, formation, and geologic history of igneous and metamorphic rocks as determined from field and laboratory studies of occurrences, mineral assemblages, rock compositions and textures. Interpretation of rock and mineral compositional diagrams; application of experimental work and detailed computer modelling of petrochemical processes. Practical work examines the petrography and geochemistry of igneous and metamorphic suites. Field studies are an essential component of the unit.

Course: SC30

Prerequisite: ESB462

Credit Points: 12 **Contact Hours:** 5 per week

■ **ESB522 HYDROGEOLOGY**

A broad-based course on groundwater, directed to its occurrence and quality, from both resource and environmental aspects. The hydrological cycle; the origin, occurrence and movement of groundwater; geology and character of aquifers; the chemistry and quality of groundwater, and their monitoring; exploration methods; drilling and testing methods and equipment. Practical exercises with pump tests, groundwater flow, material permeability, field testing, chemical analysis, computer software and modelling. Laboratory visits, demonstrations and a field practical, interaction with government departments and private industry.

Course: SC30

Prerequisite: ESB432

Credit Points: 12 **Contact Hours:** 5 per week

■ **ESB542 ENGINEERING AND ENVIRONMENTAL GEOLOGY**

This unit is structured around the inter-related fields of engineering and environmental geology and soil and rock mechanics. The topics studied are those most likely to apply to the work of the engineering or environmental geologist in tropical urban and coastal areas. Topics include investigation techniques and philosophies for the engineering of slopes, coastal structures, dams, buildings and subsurface openings; practical investigation methods; the input of geology into urban and coastal developments; the mechanical and chemical properties of soils and rocks; seepage; shear strength; bearing ca-

capacity; consolidation theory; stresses and displacements, in-situ stresses; earthquakes and slope stability.

Course: SC30

Prerequisites: ESB392 and either ESB342 or ESB462

Credit Points: 12 **Contact Hours:** 5 per week

■ ESB582 ORE GENESIS

The formation of ore deposits. A wide variety of deposits are studied with an emphasis on metallic ore deposits, their characteristics, and environments of deposition. Ore-forming processes are discussed, together with tectonic perspectives, modern ore formation and techniques of study of ore deposits.

Course: SC30

Prerequisites: ESB472

Credit Points: 12 **Contact Hours:** 5 per week

■ ESB592 ADVANCED GEOLOGICAL MAPPING

A field excursion conducted during the semester break emphasising geologic mapping skills in lithologically and structurally varied regions. Past excursions have focused on the Mt Isa region, and have been run in collaboration with the University of Queensland. Lectures/tutorials prior to the excursion review and develop mapping and geologic interpretation techniques. Assessment is based on tutorial exercises completed during the semester, and geologic maps, cross sections and reports in the field. All work is finalised at the conclusion of the excursion. Students are expected to cover their transport expenses to the field site, as well as accommodation and food costs during the excursion.

Course: SC30

Prerequisites: ESB342, ESB392, ESB432, ESB512

Credit Points: 12

■ ESB602 GEOLOGICAL INVESTIGATIONS

An introduction to geological research through the development and completion of a research project within a specified area of geology. Students are required to develop, in consultation with an appropriate staff member, a research proposal with specific aims and objectives, relevant methodology and appropriate background. The research problem must be field-based and include a laboratory component. Lecture/tutorial sessions in information retrieval, writing and presentation skills. Assessment is based on written and oral reports.

Course: SC30

Prerequisites: Approval from Head of School

Credit Points: 12 **Contact Hours:** 5 per week

■ ESB652 EXPLORATION GEOSCIENCE

Design of mineral exploration programs: target generation, reconnaissance, detailed investigation, evaluation, time and budget schedules, risk factors. Introduction to the theoretical base of exploration geochemistry; main types of geochemical surveys in regional, local and mine scale exploration; the role of statistics in design and interpretation of exploration geochemical programs; analytical methods in geochemical prospecting; the role of biogeochemistry. Remote sensing in exploration; airborne geophysical surveys, design, acquisition, processing and interpretation leading to the design and operation of follow-up ground surveys; assessment of drilling results by geophysical logging and tomography; use of software applications; geophysical case histories.

Course: SC30

Prerequisites: ESB332, ESB452, ESB582

Credit Points: 12 **Contact Hours:** 5 per week

■ ESB672 FOSSIL FUEL GEOLOGY

Coal properties, classification, genesis and analysis; hand specimen study and microscopy; hydrocarbon generation from coal and oil shale; coalfield geology and subsurface mapping techniques; basin analysis; coal pro-

duction and economics. Origin and characteristics of petroleum fluids including: generation, accumulation and migration through time and space; study of structural and stratigraphic traps and reservoir rock characteristics; application of drilling, logging and geophysical techniques to quantify these aspects; correlation techniques including seismic stratigraphy; economics of production. Field excursions of short duration as required, together with practical assignments.

Course: SC30

Prerequisite: ESB522

Credit Points: 12 **Contact Hours:** 5 per week

■ ESB682 SEDIMENTOLOGY AND BASIN ANALYSIS

Principles of fluid flow, flow regimes, sedimentary processes; facies and sequence models for alluvial, deltaic, estuarine, shoreline, shelf, turbidite, lacustrine, carbonate and evaporite depositional systems; how these systems respond to accommodation-space changes induced by changes in tectonic, eustatic and climatic conditions through time; integration of geophysical, geochemical, biostratigraphical, palaeoecological, diagenetic, thermal and other specialist datasets to the process of basin analysis. Involves compulsory field studies and practical exercises in both modern and ancient sedimentary environments.

Courses: SC30, ED50

Prerequisites: ESB342, ESB432, ESB462

Credit Points: 12 **Contact Hours:** 5 per week

■ ESB700 PROJECT

This unit involves undertaking, in consultation with a supervisor and through interaction with lecturing and technical staff of the School of Geology, a substantial project in an appropriate area of earth science. The unit provides the opportunity for students to identify and solve geological problems logically and creatively. Students are required to relate the project work to published work in the field of study, and adopt the style of the Australian Journal of Earth Sciences for the written report. Each project is assessed on the basis of an extensive written report and an oral presentation.

Course: SC60

Credit Points: 48

■ ESB701 GEOLOGY REVIEWS

Within this unit students develop a written discussion of a geological problem or issue that is comparable to the focus of their own research project. Using available published literature, students critically analyse data and conclusions presented by other researchers in order to synthesise a discussion of the geological issue or case. The report focuses on those geological components that justify its selection as a geological review.

Course: SC60

Credit Points: 12 **Contact Hours:** 3 per week

■ ESB704 ADVANCED STUDIES IN EARTH SCIENCE

Provides a selection of coursework appropriate to fourth-level studies in earth science disciplines. The unit has a modular structure that not only accommodates the range of advanced level studies needed to support research projects of individual students but also avoids promoting overspecialisation at the Honours level. From the 4- and 8-credit point modules indicated, students select any combination of modules appropriate to their interests and research project to total 20

Credit Points: (a) Advanced Sedimentology and Stratigraphy [8 credit points]; (b) Advanced Resources Geology [8 cp]; (c) Coastal Zone Hazards [8 cp]; (d) Geochemical Systems: magmatic processes [4cp]; (e) Geochemical Systems: isotopes, fluids and phase equilibria [4 cp]; (f) Global Plate Tectonics [8 cp]; (g) Groundwater Geology and Geochemistry [4 cp];

(h) Mineral Exploration Geophysics [4 cp]; (i) Seismic Exploration Geophysics [4 cp].

Course: SC60

Prerequisites: As approved by Honours (Geology) Coordinator

Credit Points: 20 Contact Hours: 10 per week

■ ESB705 COMPLEMENTARY STUDIES

Provides students with skills that allow them to formulate and write a research proposal, to be capable of reading scientific literature with a view of abstracting critical aspects, and to produce reports that are written in a journal format and at a standard that could lead to publication. The unit also addresses philosophical issues such as ethics, professional integrity and plagiarism, and provides workshops in practical methods relevant to research in geology. These workshops include: (a) SEM unit; XRD unit; ICP and AAS analysis; (b) computing skills; (c) sample collection and processing; (d) data presentation and geological mapping methods.

Course: SC60

Credit Points: 12 Contact Hours: 3 per week

■ ESN110 ADVANCED TOPICS IN EARTH SCIENCE 1

This unit facilitates students in developing an advanced understanding of a topic in earth science that is highly relevant to their proposed research. The content is therefore variable and depends on the earth science topic chosen.

Courses: SC80

Credit Points: 12

■ ESN130 COMPUTER APPLICATIONS IN EARTH SCIENCE

Examination of up to five computer programs relevant to a particular aspect of earth science operating on a range of systems; readings on the theoretical base for each program; case studies for each application and an assessment of the results of the applications.

Course: SC80

Credit Points: 12

■ ESN140 RESEARCH METHODOLOGY 1

A variety of field and laboratory techniques for the collection of data in a particular earth science discipline; the practical application of these techniques; strategies for assessing their appropriateness for particular problems; the theoretical basis of the research.

Course: SC80

Credit Points: 12

■ ESN160 SEMINARS

Students may present several seminars ranging from a summary of background to a particular topic to a preliminary data presentation. The unit may also involve attending external seminars or workshops.

Course: SC80

Credit Points: 12

■ ESN170 LITERATURE SURVEY

Develops the detailed background of a student's research topic and extends the student's knowledge into current and relevant literature.

Course: SC80

Credit Points: 12

■ EST219 ENGINEERING GEOLOGY

The basic principles and theories of geology, emphasising the way in which mineralogy and petrology, geologic structures, geomorphology and groundwater interact with, and are related to, surveying, and engineering design and construction. The engineering properties of rock and soil, and the effect of geologic hazards on the built environment; case histories on the relevance of geology to the surveyor's and civil engineer's workplace.

Courses: CE21

Credit Points: 7

Contact Hours: 2 per week

■ GSN100 GLOBAL BUSINESS STRATEGIES

This unit places business strategy and policy firmly in a

global context, developing knowledge, analytical understanding and action-taking competencies. The paradigm adopted is that of strategic management: analysis of stakeholders, special emphasis on the global environment and capabilities, strategy formulation, implementation and evaluation. Teaching methodologies emphasise the process of management in a global environment as well as analysis, content and concepts.

Courses: GS70, GS80, GS81

Prerequisites: An undergraduate degree in business, commerce or economics; or 48 credit points from the core of GS81

Credit Points: 12

Contact Hours: 3 per week

■ GSN101 INTERNATIONAL ENVIRONMENT OF BUSINESS

This unit places business in the context of the world system. Business operates in an increasingly international environment and the aim of this unit is to provide a detailed theoretical and practical understanding of that environment, its current and future trends. The focus will be upon: the economic, social and political factors conditioning contemporary international business structures and relations as well as its likely future developments.

Courses: GS70, GS80, GS81

Prerequisites: An undergraduate degree in business, commerce or economics; or 48 credit points from the core of GS81

Credit Points: 12

Contact Hours: 3 per week

■ GSN102 INTERNATIONAL FINANCE AND RESOURCE MANAGEMENT

This unit analyses international trade in goods and services in the context of the firm and its management. While it looks at the theoretical foundations upon which trade rests and the financial institutions and mechanisms which facilitate it, it also looks at the practical aspects of export and import activities, foreign investment, and establishing operations in a host country. The unit also discusses the various national and international bodies and agreements which facilitate and regulate trade and financial flows. At the theoretical level, particular topics covered include: the theory of comparative advantage; the balance of payments; the role of tariff and non-tariff trade barriers; international financial markets; international financial management; exchange rate determination; and international banking. At the practical level, particular topics include: terminology; exporters, importers, and foreign investors' responsibilities; export and import documentation; finance for international product, service, and capital transactions; risk and insurance as they relate to foreign transactions.

Courses: GS70, GS80, GS81

Prerequisite: An undergraduate degree in business, commerce or economics; or 48 credit points from the core of GS81 including GSN203

Credit Points: 12

Contact Hours: 3 per week

■ GSN103 INTERNATIONAL HUMAN RESOURCE MANAGEMENT

This unit focuses on the specifically international dimensions of Human Resource Management, principally as they affect domestic organisations operating internationally, as well as global, transnational and multinational organisations. Particular reference is given to the management aspects of international HRM. Topics include: the strategic link between international business and international HRM; going international; international labour markets; cross-cultural issues; career management issues; staff performance appraisal and management; compensation; preparation for international experience; compensation, staffing, performance appraisal.

Courses: GS70, GS80, GS81

Prerequisite: An undergraduate degree in business, commerce or economics; or 48 credit points from the core of GS81 including GSN205

Credit Points: 12 **Contact Hours:** 3 per week

■ **GSN104 INTERNATIONAL MANAGEMENT AND BUSINESS ORGANISATION**

Whereas 'Business and the International Environment' is concerned with broad, international trends, this unit aims to provide a detailed examination of typical impacts of the international environment upon organisation: management, structure, work, operations and human resource capabilities. The unit also examines the interface between management/organisation and the external environment of business.

Courses: GS70, GS80, GS81

Prerequisite: An undergraduate degree in business, commerce or economics; or 48 credit points from the core of GS81 including GSN204

Credit Points: 12 **Contact Hours:** 3 per week

■ **GSN105 INTERNATIONAL MARKETING**

This unit covers international marketing theory and planning, with a strong applied emphasis. Issues will include the segmentation of international markets, life cycle and contingency approaches to international market entry choice, organisation marketing, channels, and market development and extension. Planning issues will focus on the strategic marketing processes involved, including international market research, and their application to regions and countries in the Asia/Pacific, European and North American areas.

Courses: GS70, GS80, GS81

Prerequisite: An undergraduate degree in business, commerce or economics; or 48 credit points from the core of GS81 including GSN206

Credit Points: 12 **Contact Hours:** 3 per week

■ **GSN106 LEADING AND MANAGING INTERNATIONALLY**

This unit develops both a sensitivity and a skills base to lead and manage effectively in a global setting. The unit explores different patterns of behaviour, custom and practice across the world in order to prepare students for the challenge of leading and managing. Different levels of analyses – individual, group, organisational, industry/regional, societal/cultural – are brought to bear in this exploration.

Courses: GS70, GS80, GS81

Prerequisite: An undergraduate degree in business, commerce or economics; or 48 credit points from the core of GS81

Credit Points: 12 **Contact Hours:** 3 per week

■ **GSN107 MANAGING INNOVATION AND ENTERPRISE DEVELOPMENT**

The nature and processes of innovation (as applied to factors such as: products, services, technology, delivery, network structures) and enterprise creation and development. Assessment of the entrepreneur and new venture team as well as the business opportunity and resource requirements. The unit explores methods of establishing ventures from multidisciplinary perspectives. At the completion of this unit, students will possess the necessary skills and critical insight to contribute to the management of innovation and enterprise development in a global setting.

Courses: GS70, GS80, GS81

Prerequisite: An undergraduate degree in business, commerce or economics; or 48cps from the core of GS81

Credit Points: 12 **Contact Hours:** 3 per week

■ **GSN108 INDUSTRY PLACEMENT**

Students may proceed to this course of study if they have completed GSN207 Organisational Analysis and Con-

sulting, and if they have arranged an industry placement and project acceptable to the Course Coordinator. The industry placement will take the form of a period of time spent with an organisation and during this period a consulting report will be undertaken.

Course: GS80, GS81

Prerequisites: 48 credit points in GS80 or GS81 including GSN207

Credit Points: 48

■ **GSN109 INTERNATIONAL PROJECT I**

This project enables students to undertake a piece of applied research with minimal supervision. Students should seek advice from the Course Coordinator regarding their choice of topic.

Course: GS80 **Prerequisite:** 48 credit points in GS80

Credit Points: 12

■ **GSN110 INTERNATIONAL PROJECT II**

The project enables students to undertake a significant piece of applied research with minimal supervision. Students should seek advice from the Course Coordinator regarding their choice of topic.

Course: GS80 **Prerequisite:** 48 credit points in GS80

Credit Points: 24

■ **GSN200 BUSINESS STRATEGIES**

This unit develops a manager's knowledge, analytical understanding and action-taking competencies. The paradigm adopted is that of strategic management, analyses of stakeholders, environments, and capabilities, strategy formulation, implementation and evaluation. Teaching strategies emphasise the process of management as well as analysis, content and concepts.

Courses: GS70, GS80

Prerequisite: 48 credit points from core of GS81

■ **GSN201 GLOBAL BUSINESS NETWORKS**

Global communication technologies are developing at a rapid rate. They will undergird the operation of the global economy and change the operation of local business organisations, including the management of information and information flows. The unit examines this development from technological, cultural and business strategy perspectives. Experience with the INTERNET is provided with particular attention paid to its potential to change business fundamentals, such as marketing and advertising, strategic alliances and internal and external communication and management of information.

Courses: BS30, GS70, GS80, GS81

Credit Points: 12 **Contact Hours:** 3 per week

■ **GSN202 MANAGERIAL ACCOUNTING**

This unit, which deals with accounting concepts and principles, includes topics such as development of the profit and loss account and balance sheet, reporting aspects of the balance sheet, asset and liability recognition and management, cost/volume/profit analysis, manufacturing costs, budgeting, and managerial decision making.

Courses: BS30, GS70, GS80, GS81

Credit Points: 12 **Contact Hours:** 3 per week

■ **GSN203 MANAGERIAL ECONOMICS**

This unit examines principles of economics pertinent to managerial decision-making in the domestic and international economic environments. Topic areas include: an introduction to economics, demand analysis and forecasting, cost analysis, market strategy, investment analysis, international trade and the balance of payments. At the completion of the unit, students should be capable of applying economic principles to problems of resource allocation in the firm, in industry, and in the national and international economies. A principal means of achieving the end will be completion of an industry study



by each student, and an analysis of the Commonwealth budget strategy.

Courses: BS30, GS70, GS80, GS81

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EFN405

■ GSN204 MANAGEMENT AND THE BUSINESS ENVIRONMENT

This unit provides a broad overview of management and business in national and global contexts. The focus will be on both profit and not-for-profit organisations. It provides the key foundation for subsequent units in the program. The unit acquaints students with the role of the manager and the main concepts, principles and techniques of management. In addition to a general introduction to management, students will explore the nature of business: functions, structures and processes.

Courses: BS30, GS70, GS80, GS81

Credit Points: 12 **Contact Hours:** 3 per week

■ GSN205 MANAGING HUMAN RESOURCES

This unit recognises the importance of the management of human resources for organisational effectiveness and quality of work life. It emphasises the relationship between the management of human resources and the business enterprise at a strategic level. Perspectives brought to bear in this examination include strategic, functional and multiple constituency models. Topics include: workforce planning, job analysis, staffing, employer/employee relations, enterprise bargaining, training and development, equity issues, remuneration and career management.

Courses: BS30, GS70, GS80, GS81

Credit Points: 12 **Contact Hours:** 3 per week

■ GSN206 MARKETING

This unit examines the role of marketing and its place within the firm. It examines key marketing decision areas, including the marketing concept, marketing research, consumer behaviour, marketing segmentation and positioning, product policy, pricing, promotion and distribution. It further examines the place of marketing within the strategic processes of the modern firm and the complexities brought about by an increasingly complex, international environment.

Courses: BS30, GS70, GS80, GS81

Credit Points: 12 **Contact Hours:** 3 per week

■ GSN207 ORGANISATIONAL ANALYSIS AND CONSULTING

The ability to analyse organisations and organisational functioning is critical to management effectiveness. It is important to be able to gather data about an organisation and its performance in order to better understand it and, where needed, to recommend and guide the implementation of change. Various theoretical models of organisation and organisational analysis, including action research models, are explored. This unit helps students to understand the role of the 'change agent' and equips them to perform the role of internal and/or external consultant from initial contact with the client/organisation through to completion, including proposal and report writing. This unit is compulsory for students undertaking industry placement.

Courses: BS30, GS70, GS80, GS81

Prerequisites: An undergraduate degree in business, commerce or economics; or 48 credit points from the core of GS81

Credit Points: 12 **Contact Hours:** 3 per week

■ GSN208 PERSONAL DEVELOPMENT AND ETHICS FOR MANAGERS

The focus of this unit is on the individual in interaction. Through it, individuals will identify and develop the competencies, interpersonal and intercultural, required

to be an effective global manager. The competencies occur in both cognitive and affective domains at personal, interpersonal and professional levels. The unit also examines influence processes, personal behaviour and ethics, career management issues and reflective practice. Individuals will develop a sophisticated understanding of their personal style of interaction, allowing them to foster a healthy environment and alleviate dysfunctional processes.

Courses: BS30, GS70, GS80, GS81

Credit Points: 12 **Contact Hours:** 3 per week

■ GSN209 PROFESSIONAL PROJECT I

This project enables students to undertake a piece of applied research with minimal supervision. Students should seek advice from the Course Coordinator regarding their choice of topic.

Course: GS81 **Prerequisite:** 48 credit points in GS81

Credit Points: 12

■ GSN210 PROFESSIONAL PROJECT II

The project enables students to undertake a significant piece of applied research with minimal supervision. Students should seek advice from the Course Coordinator regarding their choice of topic.

Course: GS81 **Prerequisite:** 48 credit points in GS81

Credit Points: 24

■ HLN001 LITERATURE REVIEW

■ HLN002 RESEARCH PROJECT

■ HLN003 THESIS PRESENTATION

These three units combine to constitute the research/thesis component of the Master of Health Science. The thesis in total provides students with an opportunity to formally extend and synthesise knowledge gained in earlier semesters of the program. This study represents an independent and original piece of research completed with the guidance of a supervisor. The thesis provides an opportunity for coursework conducted in the area of specialisation to be applied in a practical manner reflecting the student's specific interest in health science. The thesis may be a report on research which makes a contribution to knowledge, or a study in which the student critically analyses and appraises existing knowledge and produces observations and conclusions of value to the field concerned. The thesis is divided into three distinct units: Literature Review 12cp, Research Project 12cp, Thesis Presentation 24cp. Units may be studied independently or concurrently.

Course: HL88

Credit Points: 48 total

Contact Hours: HLN001 – 3 per week, HLN002 – 3 per week

■ HLN405 QUALITATIVE RESEARCH

Addresses qualitative methodologies and methods pertinent to research in the health sciences.

Courses: HL88, HL50, HL52, HL58, NS85, NS64, PU65, PU69

Credit Points: 12 **Contact Hours:** 3 per week

■ HLP101 ADVANCED DISCIPLINE READINGS

This unit provides the opportunity for students to identify and review the literature relevant to their selected research topic. A one day seminar in advanced information retrieval skills is included.

Courses: HL50, HL52, HL58 **Credit Points:** 12

■ HLP102 RESEARCH SEMINARS

Preparation and completion of a seminar presentation in a professional and scientific manner plus attendance at scheduled seminars.

Courses: HL50, HL52, HL58

Prerequisites: MAN009 or HLN405

Credit Points: 12

■ **HLP103 DISSERTATION**

This unit is broken into a number of components which are completed over successive semesters (as appropriate for full-time or part-time course structure). A written report in the form of a dissertation proposal must be submitted by the end of week 6 in the semester in which enrolment in the dissertation commences.

Courses: HL50, HL52, HL58

Corequisites: All other units in Honours program

Credit Points: 48

■ **HMB171 FITNESS, HEALTH & WELLNESS**

The study of systems of the human being basic to physical activity; the interrelationships of health, physical activity and wellness, historically and dimensionally; basic principles of conditioning and exercise prescription to demonstrate the impact of physical activity on lifestyle diseases, health behaviours and wellness.

Courses: ED50, ED51, HM42

Credit Points: 12 **Contact Hours:** 3 per week

■ **HMB172 PHYSICAL ACTIVITY, NUTRITION AND WEIGHT CONTROL**

An introduction to the essential physical growth concepts and an overview of nutritional principles as they apply to physical activity and weight control.

Courses: ED50, HM42

Credit Points: 12 **Contact Hours:** 4 per week

■ **HMB271 MOTOR CONTROL & LEARNING**

Overview of relevant theories and research in motor control and learning for acquisition of skilled motor behaviour: a knowledge of information processing and sensory systems; memory processes; factors contributing to motor learning; laws of simple movements; motor programs and motor control processes.

Courses: ED50, HM42

Prerequisite: LSB231

Credit Points: 12 **Contact Hours:** 4 per week

■ **HMB272 BIOMECHANICS**

The application of mechanics as they apply to human movement and sports performance including: kinematics and dynamics of human body models; quantitative analysis; impact; work and power.

Courses: ED50, HM42

Credit Points: 12 **Contact Hours:** 4 per week

■ **HMB273 EXERCISE PHYSIOLOGY**

Energy systems; aerobic and anaerobic systems; bioenergetics; fuels for energy. Fitness components: aerobic capacity, strength, power, muscular endurance, flexibility. Training and conditioning: effects on the system of the body; methods and techniques; training for different populations (children, females, aged); training for specific sports and activities. Evaluation of fitness: tests for all fitness parameters; essential practical and laboratory procedures.

Courses: ED50, HM42

Prerequisites: LSB231 or equivalent

Credit Points: 12 **Contact Hours:** 4 per week

■ **HMB274 FUNCTIONAL ANATOMY**

Surface anatomy of the trunk and upper and lower limb; morphological and mechanical properties of bone, muscle-tendon units with implications for physical activity; joint structure and function; analyses of movement tasks including walking and running; cinematography and electromyography in functional anatomy of movement tasks.

Courses: ED50, HM42, ME46

Prerequisite: LSB131

Credit Points: 12 **Contact Hours:** 4 per week

■ **HMB275 EXERCISE & SPORT**

PSYCHOLOGY

Introduction to the psychological factors which influence performance, participation and adherence to both sport and exercise programs; personality and the ath-

lete; attention and arousal; relaxation theory and practice; aggression and psycho-social development, leadership and team cohesion.

Courses: ED50, HM42

Prerequisite: SSB912 or equivalent

Credit Points: 12 **Contact Hours:** 3 per week

■ **HMB276 RESEARCH IN HUMAN MOVEMENT**

Principles of research: purposes, philosophy, applications. Quantitative research: principles of test construction and administration; basic statistics; basic research design hypothesis testing. Qualitative research: methodology; data collection; theory building. Research presentation: writing a research report; developing conclusions. Application of research; examples in human movement; related literature.

Course: HM42

Credit Points: 12 **Contact Hours:** 4 per week

■ **HMB301 HEALTH & PHYSICAL EDUCATION 1**

The nature, scope and importance of health and physical education as part of the primary school curriculum. Content includes: concepts and content incorporated in the philosophy of health education and the importance of lifelong healthy living; the structure, management and evaluation of physical education lessons in the school environment; planning learning experiences and developing health and physical education program modules.

Course: ED51

Credit Points: 12 **Contact Hours:** 5 per week

■ **HMB302 HEALTH & PHYSICAL EDUCATION 2**

This unit builds on HMB301 to give a greater understanding of the nature of health education and physical education as applied curriculum areas. Further insight into relevant syllabus and curriculum documents is provided; competencies in planning and teaching developed; close links with teaching practice.

Course: ED51

Credit Points: 12 **Contact Hours:** 3 per week

■ **HMB304 PHYSICAL ACTIVITY & MODERN SOCIETY**

The nature of the symbiotic relationship between social patterns and the nature and role of physical activity and its influence upon physical education, sporting and fitness programs in primary schools. The importance of both social and cultural change and of the role of teachers in the design and implementation of such programs.

Course: ED51

Credit Points: 12 **Contact Hours:** 3 per week

■ **HMB305 PERSONAL HEALTH**

An examination of the range of factors influencing personal health including lifestyle and a range of social, economic and environmental factors. A holistic perspective on personal health.

Courses: ED50, ED51

Credit Points: 12 **Contact Hours:** 3 per week

■ **HMB306 DEVELOPMENTAL & INTEGRATED PHYSICAL ACTIVITY**

Provides the theoretical basis to enable teachers of physical education to program for and implement physical activity for all children. Topics include: normal motor development and variations in these patterns in children with an intellectual, sensory, neurological, physiological or orthopaedic disability. Students taking this unit participate in the community based physical activity programs for such children.

Course: ED51

Credit Points: 12 **Contact Hours:** 3 per week

■ HMB308 PHYSICAL ACTIVITY STUDIES

An overview of the breadth of the exercise science field with reference to the structure and function of the human body and key issues associated with the development of health related and motor fitness.

Course: ED51
Credit Points: 12

Prerequisite: HMB304
Contact Hours: 3 per week

■ HMB310 PHYSICAL EDUCATION CURRICULUM STUDIES 1

The nature of physical education as an applied curriculum area. Insights into relevant Queensland syllabus and curriculum documents are provided; competencies in planning and teaching are developed and close links are made with teaching practice.

Courses: ED50, ED54

Prerequisites: EDB323 and at least 48 credit points in the relevant discipline area
Credit Points: 12

Contact Hours: 3 per week

■ HMB312 FITNESS PARAMETERS

To equip students to plan and monitor fitness programs. Topics include: essential physiology; circulatory, respiratory, muscular and energy systems; effects of nervous and endocrine functions on body systems; components of fitness-health related and sport performance related programs; principles and methods of training and conditioning; nutrition and weight control; thermo-regulation and fluid balance.

Courses: BS50, ED50

Credit Points: 12

Contact Hours: 5 per week

■ HMB313 SOCIO-CULTURAL FOUNDATIONS OF PHYSICAL ACTIVITY

Lays a foundation in the disciplines of the socio-cultural areas which underpin the study of human movement. It serves as an introduction to the historical, sociological, philosophical, anthropological and cultural foundations of sports, games and leisure activities.

Courses: ED50, HM42

Credit Points: 12

Contact Hours: 4 per week

■ HMB314 PERFORMANCE SKILLS 1

Involves application of scientific principles to the analysis and development of techniques in all major swimming strokes, water rescue methods and track and field events. Students explore instructional strategies, motivational, conditioning and training activities, the development of activity programs for various ability levels, and event rules application.

Course: ED50

Credit Points: 12

Contact Hours: 6 per week

■ HMB315 PERFORMANCE SKILLS 2

Various game forms are analysed in order to identify fundamental game skills and problem areas in skill development. Emphasis is placed on the application of relevant skills to suit game situations; of appropriate strategies for teaching and coaching selected sports to a variety of age groups and on the interpretation of rules in a competitive situation.

Course: ED50

Credit Points: 12

Contact Hours: 6 per week

■ HMB316 PERFORMANCE SKILLS 3

Basic theoretical principles fundamental to the performance and teaching of gymnastics and dance; physical fitness and basic biomechanical principles of excellence in gymnastics; routines incorporating a variety of gymnastic and dance skills on floor/apparatus; recognise/remedy of unsafe practices.

Course: ED50

Credit Points: 12

Contact Hours: 6 per week

■ HMB317 OUTDOOR EDUCATION

The value and place of outdoor education in schools and

the community; development of proficiency in a number of outdoor pursuits; lightweight, minimum impact camping; leadership skills and safety techniques; the Australian natural environment; promotion of positive attitudes towards natural environments.

Course: ED50

Credit Points: 12

Prerequisite: HMB314
Contact Hours: 6 per week

■ HMB321 SPORT IN SOCIETY

The relationship between sport and the social world. The nature and importance of the role of sport in modern Australian society through an analysis of such contemporary issues and developments in sport as drugs in sport, sport and the law, violence in sport, equity and sport, and sport and socialisation.

Courses: BS50, ED50

Prerequisites: HMB313 or consent of lecturer

Credit Points: 12

Contact Hours: 3 per week

■ HMB324 ADVANCED PERFORMANCE LABORATORIES

Investigation of selected advanced theoretical structures and application to a performance activity.

Course: ED50

Prerequisites: Compulsory Level 1 and Level 2 units

Credit Points: 12

Contact Hours: 3 per week

■ HMB328 INTERNATIONAL PHYSICAL EDUCATION & SPORT

Provides students with an international perspective on physical education and sport. Comparative studies in this field give insight into life in other countries and act to enhance international understanding of the global village.

Course: ED50

Prerequisites: HMB394 or HMB321 or consent of lecturer

Credit Points: 12

Contact Hours: 3 per week

■ HMB329 PLAY & CULTURE

A study of the play element in non-literate societies providing insight into play in contemporary societies. The anthropology of play provides a perspective not only for analysing play behaviour itself, but also for describing other cultural experience.

Course: ED50

Prerequisites: HMB313 or consent of lecturer

Credit Points: 12

Contact Hours: 3 per week

■ HMB332 HEALTH RELATED FITNESS

The role of health related fitness in the community and in the school for the attainment of optimal health.

Course: ED50

Credit Points: 12

Prerequisite: PUB327

Contact Hours: 3 per week

■ HMB333 CHILD & ADOLESCENT HEALTH

Child and adolescent health and the wide range of factors that impact on the health of individuals in these two crucial stages of life. An analysis is made of skills required for health-enhancing behaviours and experience provided in some of the skills needed to assess and maintain the health status of children.

Courses: ED50, ED51

Credit Points: 12

Contact Hours: 3 per week

■ HMB337 ORGANISATION & MANAGEMENT IN PHYSICAL EDUCATION & SPORT

School physical education departments and sporting associations are medium-sized organisations requiring direction for servicing a large client base with a fluctuating budget. Students examine the role of administrators, management and leadership styles, and the administration of monies, facilities and human resources in a sports setting.

Course: ED50

Credit Points: 12

Contact Hours: 3 per week

■ HMB340 PHYSICAL EDUCATION CURRICULUM STUDIES IB

Designed for those students who have chosen to do a double major in physical education, this unit extends the understanding developed in HMB310 and focuses particularly on teaching within the classroom setting. Students are introduced to strategies used to develop higher order thinking skills and are encouraged to experiment with their use.

Courses: ED50, ED54

Credit Points: 12 **Contact Hours:** 3 per week

■ HMB341 SPORTING & CAMPING ADMINISTRATION

The primary school physical educator is responsible for the organisation of educational programs both at school and in other educational and sporting settings. This unit assists students in understanding and organising a variety of sporting tournaments, carnivals and camping programs as educationally sound, safe and enjoyable experiences for children.

Course: ED51

Credit Points: 12 **Contact Hours:** 3 per week

■ HMB342 THE DEVELOPMENT OF TEACHING SKILLS IN PHYSICAL EDUCATION

Designed around micro-teaching and involving student teachers, children and their working environment in schools, this unit promotes excellence in teaching, preparation and planning with an emphasis on active learning and research. Physical education teacher education students develop a greater understanding of their prospective working environment.

Course: ED51

Credit Points: 12 **Contact Hours:** 3 per week

■ HMB343 ENVIRONMENTAL HEALTH

The focus of this unit is on educational responses to the growing concern about environmental hazards and their detrimental effects on human health. Emphasis on the curriculum implications of knowledge will assist children to make a positive contribution to health policy.

Course: ED51

Credit Points: 12 **Contact Hours:** 3 per week

■ HMB344 HUMAN RELATIONSHIPS EDUCATION

This unit has a dual focus: effective interpersonal communication by teachers as members of the school community; and the curriculum and pedagogical process for teaching children. Care, personal development, work experience and community-based learning characterise these curriculum programs. Students are introduced to these processes through lectures, seminars, workshops and appropriate field study experiences.

Course: ED51

Credit Points: 12 **Contact Hours:** 3 per week

■ HMB345 MOTOR DEVELOPMENT & PERFORMANCE IN DISABLED CHILDREN

Examination of the effects of a wide range of intellectual, sensory, neurological, orthopaedic and physiological disorders on the motor development and performance of children. Assessment techniques for evaluating motor development and performance are combined with program planning and implementation with specific cases.

Course: ED51

Credit Points: 12 **Contact Hours:** 3 per week

■ HMB361 FUNCTIONAL ANATOMY 2

A project-based unit designed to enable students with a background in Functional Anatomy to develop greater expertise in one or a combination of the following ar-

eas: electromyography, orthopaedic biomechanics, kinesiology of sport and work, comparative functional anatomy, locomotion and posture and research techniques in functional anatomy.

Course: HM42

Credit Points: 12

Prerequisite: HMB274

Contact Hours: 4 per week

■ HMB362 BIOMECHANICS 2

Research techniques within biomechanics; analysis of force systems; photographic, cinematographic, goniometric and electrographic analysis of movement; mass of inertial characteristics of the human body and biomechanical models.

Courses: HM42, ME46

Prerequisite: HMB272 or equivalent

Credit Points: 12

Contact Hours: 4 per week

■ HMB363 INDEPENDENT STUDY

To meet the specific interest of students beyond content offered within existing units; conceptualise, plan and execute a research study including survey of literature, development of an action plan, reflection on a practice or situation, and proposal for future action. The student works at an advanced level and autonomously under the supervision of a lecturer.

Courses: ED50, HM42

Prerequisite: Consent of Course Coordinator

Credit Points: 12

Contact Hours: 4 per week

■ HMB364 SEMINARS IN HUMAN MOVEMENT

Offered to capitalise on the expertise of resident or visiting staff, special needs and interests of students, and to create flexibility in unit offerings. These may include special expertise, high quality limited period research projects, seminars, conferences and new initiatives by staff and students. An interest group will study the area chosen cooperatively.

Courses: ED50, HM42

Prerequisite: Consent of Course Coordinator

Credit Points: 12

Contact Hours: 4 per week

■ HMB370 PHYSICAL EDUCATION CURRICULUM STUDIES 2

The focus of this unit is divided between issues and directions of current trends in curriculum development and advanced strategies used to achieve variety in the presentation of indoor and outdoor lessons.

Courses: ED50, ED54

Credit Points: 12

Prerequisite: HMB310

Contact Hours: 3 per week

■ HMB371 MOTOR CONTROL & LEARNING 2

Major recent theories in motor control and learning; centralist and peripheralist theories; concepts of coordination and skill; control and learning of complex movements; interlimb coordination; interacting schemata; visual-spatial, force and temporal aspects and sequencing of complex movements. Research design in motor control and learning.

Courses: ED50, HM42

Credit Points: 12

Prerequisite: HMB271

Contact Hours: 4 per week

■ HMB372 BIOPHYSICAL BASES OF MOVEMENT REHABILITATION

Overview of rehabilitation including medico-legal aspects; health professionals in the rehabilitation process; exercise specialist, medical practitioner, physiotherapist, specialist physician; exercise prescription; overview of responses to injury implications for exercise programs; modalities of treatment: exercise and rest; immobilisation, cryotherapy and hydrotherapy; exercise prescription rehabilitation.

Courses: ED50, HM42

Prerequisites: HMB271, HMB272, HMB273, HMB274

Credit Points: 12

Contact Hours: 4 per week

■ HMB374 PSYCHOLOGY OF REHABILITATION

Factors that predispose to injury and behavioural change; the psychological process of rehabilitation; teaching specific psychological rehabilitation and coping strategies; the grief process; the rehabilitation psychologist's role in the rehabilitation team; disabled athletes.

Courses: ED50, HM42

Prerequisite: HMB275, HMB372

Credit Points: 12 Contact Hours: 4 per week

■ HMB375 ADAPTED PHYSICAL ACTIVITY

Similarities and differences in the motor development and performance with intellectual, sensory, neurological, physiological, orthopaedic, musculo-skeletal and cardio-respiratory conditions; assessment and programming for individuals with impairments including program organisation and service delivery models; importance of fitness, sport and leisure for disabled individuals in mainstreamed and disorder specific groups; dance and aquatics.

Courses: ED50, HM42

Prerequisite: HMB271

Credit Points: 12 Contact Hours: 4 per week

■ HMB376 MOTOR DEVELOPMENT IN CHILDREN

Theoretical perspective of normal and abnormal motor development, incorporating maturational, descriptive and behavioural aspects; underlying sensory, perceptual, neurological and cognitive changes which influence motor development in children. A theoretical understanding of gross and fine movement behaviour; and intellectually disabled, auditorily impaired and neurologically impaired children. Programs for motor impaired children.

Courses: ED50, HM42

Prerequisites: HMB271 or at lecturer's discretion.

Credit Points: 12 Contact Hours: 4 per week

■ HMB377 CHILDREN IN SPORT

Physical development of the young athlete; physical maturation; benefits of participation in sport and physical activity; psycho-social issues: positive and negative effects of participation including competitive stress; injuries to the growing skeleton: overtraining, overuse injuries; strength training in childhood and adolescence; promotion of safety in sport: accreditation of teachers and coaches, policy guidelines for junior sport, Aussie sport program.

Courses: ED50, HM42

Credit Points: 12 Contact Hours: 4 per week

■ HMB380 PHYSICAL EDUCATION CURRICULUM STUDIES 2B

This unit is designed for those students doing a double major in physical education and focuses particularly on the areas of assessment and the use of action research in curriculum innovation. Students are required to undertake individual projects which allow them to practise critical reflection and autonomous learning in their pursuit of knowledge.

Course: HMB340

Prerequisite: HMB340

Credit Points: 12 Contact Hours: 3 per week

■ HMB381 EXERCISE PHYSIOLOGY 2

Theoretical component: an extension of material covered in exercise physiology; respiratory, circulatory and muscular systems; cardiac dynamics; hormonal and biochemical aspects of exercise. Laboratory component: familiarity with all equipment in the laboratory; testing procedures and methodology; interpretation and evaluation of results.

Course: HM42

Prerequisite: HMB273

Corequisite: HMB382

Credit Points: 12 Contact Hours: 4 per week

■ HMB382 EXERCISE PRESCRIPTION

Students research and analyse the physiological methods and procedures used in training and conditioning programs of all forms and levels of physical activity. The conditioning needs of specific populations are studied. The application of fitness assessment and exercise prescription is an integral aspect.

Courses: ED50, HM42

Prerequisites: HMB273 or at lecturer's discretion.

Credit Points: 12 Contact Hours: 4 per week

■ HMB383 WORKPLACE HEALTH

The historical and current position of workplace health as one emerging focus of occupational health and safety. Issues, laws, policies, programs and union, employer and employee perspective are analysed in conjunction with the role of workplace health professionals. The planning, development, promotion, implementation, administration and evaluation of programs from a fitness counselor's perspective.

Course: HM42

Credit Points: 12 Contact Hours: 4 per week

■ HMB384 INJURY PREVENTION & REHABILITATION

Roles and responsibilities of health professionals: first aid, injury prevention, rehabilitation, health training and facility management; prevention of injury: conditioning and fitness components, methods of evaluation of performance, personal responsibilities, protective equipment; types of injury: primary (indirect, direct and over-use) and secondary; structural classification of injury; procedures for management and rehabilitation: specific injuries.

Courses: ED50, HM42

Prerequisite: HMB372

Credit Points: 12 Contact Hours: 4 per week

■ HMB390 HEALTH EDUCATION CURRICULUM STUDIES 1

The nature of health education as an applied curriculum area. Insights into relevant Queensland syllabus and curriculum documents are provided; competencies in planning and teaching are developed and close links are made with teaching practice.

Courses: ED50, ED54

Prerequisites: EDB323 and at least 48 credit points in the relevant discipline area

Credit Points: 12 Contact Hours: 3 per week

■ HMB391 PROMOTION OF PHYSICAL ACTIVITY

Physical education departments, schools and sports organisations are constantly seeking funds, participants and spectators, and often the limiting factor is the low profile of the groups concerned. In this unit students examine the role of marketing and promotion, identify client and market mix, and develop strategies for the promotion and funding of activities.

Courses: BS50, ED50

Credit Points: 12 Contact Hours: 3 per week

■ HMB392 ORGANISING TOURNAMENTS & EVENTS

Competition is fundamental to all sports whether it be against oneself or another party. In this unit the philosophies related to competition and award systems for a varying client mix are examined; the complexities of, and skills required for, organisation of major sporting events in schools and other settings are discussed; and utilisation of human and facility resources in these settings is considered.

Courses: BS50, ED50

Credit Points: 12 Contact Hours: 3 per week

■ HMB393 SPORT & EQUITY

The inequalities that exist in society's major institutions,

with particular reference to sport and physical education. The development of knowledge of government policy and legislation regarding equity in public, private and corporate establishments, as well as within educational settings.

Courses: BS50, ED50

Prerequisites: HMB321 or HMB394 or consent of lecturer

Credit Points: 12 **Contact Hours:** 3 per week

■ HMB394 HISTORY OF PHYSICAL EDUCATION & SPORT

The historical evolution of physical education, sports and games with their role and relevance in societies past and present. It extends the historical focus of HMB313 and itself provides the foundation for contemporary analyses of sport in society.

Courses: BS50, ED50

Prerequisite: HMB313

Credit Points: 12 **Contact Hours:** 3 per week

■ HMB395 HEALTH EDUCATION CURRICULUM STUDIES 2

The focus of this unit is divided between issues and directions associated with current trends in curriculum development and advanced strategies used to achieve variety in the presentation of health lessons.

Courses: ED50, ED54

Prerequisite: HMB390

Credit Points: 12 **Contact Hours:** 3 per week

■ HMB410 PHYSICAL EDUCATION CURRICULUM: SECONDARY

The factors responsible for current physical education curriculum development. Emerging trends are studied to highlight the implications for physical education programs; challenges the student to design a secondary curriculum that reflects current trends.

Courses: ED26, ED32

Credit Points: 12 **Contact Hours:** 3 per week

■ HMB411 PHYSICAL EDUCATION CURRICULUM: PRIMARY

The notion of the teacher of physical education and the classroom teacher reflecting on their experiences is of prime import to the nature of this unit. An examination of the principles and procedures which are used within the physical education curriculum and the individual's classwork is central to the outcome. Action research methods are explained and linked to the sociological qualities of current curriculum practices. These issues relate to individual relationships within the physical education settings.

Courses: ED26, ED31

Credit Points: 12 **Contact Hours:** 3 per week

■ HMB412 HEALTH EDUCATION CURRICULUM PLANNING

Analysis and application of curriculum design theory and curriculum research to health education in primary and secondary schools. A focus on a curriculum design project is supported with a situational analysis of the project setting and is evaluated in a report on the effectiveness of the process.

Course: ED26

Credit Points: 12 **Contact Hours:** 3 per week

■ HMB440 MOTOR DEVELOPMENT & LEARNING IN CHILDREN

The role of reflexes and early voluntary movements in the development of the child; fundamental patterns of movement (walking, running, jumping, throwing, catching) and their sequential development; development of comprehension and manipulation; theories of motor learning; evaluation of perceptual-motor, sensory-motor and psychomotor theories.

Course: ED26

Credit Points: 12 **Contact Hours:** 3 per week

■ HMB441 SOCIOLOGY OF SPORT

A sociology of sport; historical and contemporary perspectives; sport in Australia; Australia's sporting heritage; corruption of sport; control of sport; media and sport; inequality in sport; social issues in sport.

Course: ED26

Credit Points: 12 **Contact Hours:** 3 per week

■ HMB442 ADMINISTRATION IN PHYSICAL EDUCATION & SPORT

Identification of duties of the administrator; administration theory; leadership styles and conflict resolution; budgeting and money management including sponsorship and fundraising; planning for a range of events; processes and procedures of management against a school and club setting.

Course: ED26

Credit Points: 12 **Contact Hours:** 3 per week

■ HMB471 PROJECT 1

Students in the Bachelor of Applied Science are required to undertake a project in Year 4. Students work in small groups on original topics. Work includes: a literature review and the presentation of experimental hypotheses, research methodology and analysis procedures. Groups present a formal colloquium at the end of Semester 1.

Course: HM42

Credit Points: 12

■ HMB472 PROJECT 2

The implementation of the plan, the analysis of results and publication of a report. Groups present a formal colloquium at the end of Semester 2.

Course: HM42

Credit Points: 12

■ HMB473 PRACTICUM 1

A pre-placement work skills program followed by a structured and supervised initial vocational experience linked to the student's selected specialised strand of study: the reality of the workplace; professional expectations; work ethics; client contact; guided practical application of specialist knowledge and skills in clinic settings. Reflective analysis of the experience.

Course: HM42

Credit Points: 12

■ HMB474 PRACTICUM 2

An extension of HMB473, a comprehensive vocational experience undertaken as a supervised full-time internship supervised full-time: operational tasks to include management and administration: independent professional skills and knowledge and full client services; and a comprehensive reflective analysis and internship.

Course: HM42

Credit Points: 24

■ HMB610 CLINICAL MEASUREMENT

Blood flow and volume, plethysmography; cardiorespiratory measurement; electrical impedance imaging; anthropometry and body composition; measurement of normal and pathological gait; kinematic and kinetic analyses of human movement and performance; functional evaluation of orthotics and prostheses; electromyography; ergonomic and environmental issues; measurement of special populations.

Course: ME46 **Prerequisites:** HMB272, HMB274

Credit Points: 8 **Contact Hours:** 3 per week

■ HMB611 HUMAN PERFORMANCE

Human adaptation to physical activity; performance efficiency and enhancement in children and adolescents; performance characteristics of adults and the elderly; human performance and the environment; performance evaluation and restoration/enhancement in the injured or disabled population.

Course: ME46

Prerequisites: HMB272, HMB274, HMB615

Credit Points: 8 **Contact Hours:** 3 per week

■ **HMB614 BIOPHYSICAL BASES OF MOVEMENT REHABILITATION**

The rehabilitation process; introduction to rehabilitation protocols; mechanisms of injury and repair and functional restoration; principles of exercise prescription and rehabilitation; modalities of treatment; modalities of exercise prescription in rehabilitation.

Course: ME46

Credit Points: 8 Contact Hours: 3 per week

■ **HMB615 EXERCISE PHYSIOLOGY**

Bioenergetics; exercise metabolism; hormonal response to exercise; muscle structure and function; circulatory adaptations, respiration and acid-base balance during exercise; temperature regulation, training and conditioning; body composition and nutrition; fitness testing and assessment procedures.

Course: ME46

Credit Points: 8 Contact Hours: 3 per week

■ **HMB616 PSYCHOLOGY OF REHABILITATION**

Factors that predispose to injury and behavioural change; the psychological process of rehabilitation; teaching specific psychological rehabilitation and coping strategies; the grief process; the rehabilitation psychologist's role in the rehabilitation team; disabled athletes.

Course: ME46

Credit Points: 8 Contact Hours: 3 per week

■ **HMB617 WORKPLACE HEALTH**

History of workplace health; legal aspects; role of associated professionals; trends in mortality and morbidity; workplace health promotion agencies and programs; planning, development, promotion, implementation and evaluation process.

Course: ME46

Credit Points: 8 Contact Hours: 3 per week

■ **HMB801 SPORT & MASS MEDIA**

The commercialisation and development of sport and the mass media are inextricably linked and the nature and implications of this relationship are the foundation for the investigation of this unit. Examination of the past, present and future aspects of this relationship through examination of current issues.

Course: BS50

Credit Points: 12 Contact Hours: 3 per week

■ **HMB802 STRUCTURE & POLICY OF AUSTRALIAN SPORT**

An understanding of the structure and policies of Australian sport is fundamental for administrators who are required to operate through the levels of government for the conduct, promotion and funding of their chosen sport. The relevant documentation and strategies for operating within the system.

Course: BS50

Credit Points: 12 Contact Hours: 3 per week

■ **HMN601 EXERCISE & HEALTH ACROSS THE LIFESPAN**

Physical activity is almost universally accepted as being relevant to health, although the pattern of activity (nature, intensity, frequency and duration of individual exercise bouts, cumulative years of participation) required to induce maximum health benefits remains uncertain. Exercise throughout the lifespan and the implications for good health.

Course: HL88

Credit Points: 12 Contact Hours: 3 per week

■ **HMN602 READINGS IN HUMAN MOVEMENT STUDIES**

Enables students to explore the breadth of their chosen sub-discipline in contrast to the more specific focus of

their thesis topic to follow. Provides the opportunity for students to develop a compendium of readings in an area(s) not catered for in other units comprising their specialisation. Students select advanced readings in their chosen field and submit a comprehensive annotated bibliography that critically reviews the available literature. This work is conducted under the supervision of a lecturer allied to the chosen area of study.

Course: HL88

Credit Points: 12 Contact Hours: 3 per week

■ **HMN603 SCIENTIFIC BASES OF HUMAN PERFORMANCE**

Provides the opportunity to develop theoretical and practical knowledge of selected topics representative of the scientific bases of human performance. Topics include: material from the recognised sub-disciplines of human movement science, functional anatomy, biomechanics, and exercise physiology. Investigates changes in the human energy systems, musculo-skeletal system and cardiovascular system that occur when the body is placed in a physically stressful situation (exercise being the predominant stressor considered). Specific applications to the physical activity setting.

Course: HL88

Credit Points: 12 Contact Hours: 3 per week

■ **HMN604 SOCIAL ISSUES IN SPORT**

An advanced in-depth analysis of the diverse social issues which have permeated sport in Australia. The requirement for a critical cultural analysis has been necessitated by issues such as discrimination, violence, drugs, elitism, ethnocentricism, internationalism, politicisation, commercialisation and quantification. The focus is on the analysis of the nature, role and significance of sport in modern society. Designed for professionals and practitioners in the field of sport and physical activity who are in the corporate setting, educational domain and government and community departments.

Course: HL88

Credit Points: 12 Contact Hours: 3 per week

■ **HMP015 SCHOOL HEALTH PROGRAM PLANNING**

Planning, implementation and evaluation of school health programs. Analysis of a range of planning models in health education and health promotion.

Courses: ED31, PU69

Prerequisite: HMP014
Credit Points: 12 Contact Hours: 3 per week

■ **HMP401 PHYSICAL EDUCATION CURRICULUM STUDIES 1**

Nature of physical education as an applied curriculum area; interpreting and managing the physical education practical and theoretical learning environment with particular attention to learner safety, maximum participation and teaching for cognition in practical activities; Mosston's spectrum of teaching styles.

Course: ED32, ED37

Prerequisite: HMP420
Credit Points: 12 Contact Hours: 3 per week

■ **HMP402 PHYSICAL EDUCATION CURRICULUM STUDIES 2**

Clarification of the motives and roles of physical education as a medium for education; exploration of the current physical education documents and the value orientations implicit within; language in physical education; the affective domain in physical education; teaching in unusual environments; evaluation and selection of learning experiences.

Course: ED32, ED37

Prerequisite: HMP421
Credit Points: 12 Contact Hours: 3 per week

■ **HMP403 HEALTH EDUCATION CURRICULUM STUDIES 1**

Nature of health education as an applied curriculum area;

relevant Queensland syllabus and curriculum documents; competencies in planning and teaching are developed and close links made with teaching practice.

Course: ED32, ED37

Credit Points: 12 Contact Hours: 3 per week

■ HMP404 HEALTH EDUCATION CURRICULUM STUDIES 2

Issues and directions associated with current trends in curriculum development; advanced strategies used to achieve variety in the presentation of health lessons.

Course: ED32, ED37

Credit Points: 12 Contact Hours: 3 per week

■ HUB002 CONTEMPORARY MORAL PROBLEMS

The central questions of applied ethics and moral philosophy through an analysis of contemporary issues: uses of technology, genetic engineering, nuclear energy, over-population, environmentalism, war, terrorism, civil disobedience, pacifism, racism, sexism, abortion, euthanasia, suicide and sexuality.

Course: ED26

Credit Points: 12 Contact Hours: 3 per week

■ HUB003 PHILOSOPHY & NURSING I

A general introduction to philosophical questions and reasoning. Students have the opportunity to examine the ways in which personal beliefs and values impact on the nature of human beings and on nursing practice. Topics include: the nature of philosophy and political philosophy; the concept of personhood; spirituality and caring; critical thinking in nursing practice.

Course: NS40, NS48

Credit Points: 8 Contact Hours: 3 per week

■ HUB004 PHILOSOPHY & NURSING 2

Exploration of bioethics providing a foundation for the nursing professional in the handling of moral dilemmas intrinsic in the provision of health care. Topics include: introduction to ethics; bioethics in the social context; the process of moral decision-making; ethics and professional nursing practice.

Course: NS40, NS48

Credit Points: 8 Contact Hours: 3 per week

■ HUB005 SOCIAL ETHICS & HUMAN RELATIONSHIPS

Philosophical and pedagogical issues underpinning the human relationships dimension of classroom practice and school cultures (e.g. concept of personhood, the nature of love, power, desire, human rights); sociocultural factors and changes generating moral dilemmas in society; case studies of moral issues and moral decision-making; the ethics of teaching controversial issues and matters such as indoctrination and censorship in the context of human relationships education in the Queensland education system.

Course: ED50

Credit Points: 12 Contact Hours: 3 per week

■ HUB007 HEALTH & ETHICS

An introduction to ethics within a health care context. Particular focus on the role of health care educators exploring the ethical challenges confronting them and the ways in which they may cultivate moral sensitivity as part of community 'well-being'.

Course: ED50

Credit Points: 12 Contact Hours: 3 per week

■ HUB008 RESEARCH METHODS IN ETHICS & BIOETHICS

Health care practice, including that of nursing practice, is both constituted by ethical values and embedded in a broader area of social provision, that of health care, where ethical concerns and dilemmas are constantly

emerging. Consequently, the areas of health care ethics, bioethics and nursing ethics challenge the contemporary health care professional as a reflective practitioner and provide an emerging focus of postgraduate and professional research. This unit has been designed for those who plan to pursue postgraduate research in an area of applied ethics or bioethics or for those health care professionals who wish to develop a further expertise in their grasp of the ethical dimension to health care practice.

Courses: NS40, NS48

Credit Points: 12 Contact Hours: 3 per week

■ HUB009 ETHICS LAW & HEALTH CARE

Nursing practice involves making decisions with and for others which necessarily involve making evaluations of what is in the best interest of others, what are nurses' obligations to others and what will best protect or enhance their well-being. Hence, decision-making in nursing practice is bounded by normative considerations and these normative considerations fall into two groups: those constituted by the law and those constituted by ethics. This unit has been designed to provide for nursing students and practitioners an opportunity to develop a reflective understanding of the place of law and ethics in nursing and a professional awareness of current legal statutes and ethical discussions as they apply to nursing practice.

Courses: NS40, NS48

Credit Points: 12 Contact Hours: 3 per week

■ HUB201 THE NATURAL ENVIRONMENT

The geomorphological systems which are creating the surface of the earth and with which human systems interact; the probable effects of the interaction of human and physical systems.

Course: ED50

Credit Points: 12 Contact Hours: 3 per week

■ HUB202 HUMAN GEOGRAPHY

The nature and purpose of geography in terms of its conceptual structure and enquiry approaches; technologies, methods, skills used by geographers.

Course: ED50

Credit Points: 12 Contact Hours: 3 per week

■ HUB207 ENVIRONMENTAL HAZARDS

The nature of hazard, risk and disaster; origins of hazards; nature of disaster; influences on the perception of risk; disaster prediction, preparation, response and recovery strategies.

Prerequisite: HUB201

Course: ED50 Credit Points: 12 Contact Hours: 3 per week

■ HUB313 AUSTRALIAN STUDIES

The background to settlement; attitudes and beliefs of early settlers and the extent to which these influenced the development of colonial society; European civilisation and the Aborigine; the origins of an Australian stereotype and development of an ethos; nationalism and federation, Australia between the wars; Australia since World War II; urbanisation and the rights of the individual.

Course: ED50

Credit Points: 12 Contact Hours: 3 per week

■ HUB419 LOTE 2

Focuses on furthering students' proficiency in a LOTE using communicative teaching techniques as outlined in the ALL guidelines. The major emphasis of the teaching program, expressed at an holistic level, relates to communication. Learners should be able to compose and comprehend a LOTE in both written and spoken modes in a range of genres and contexts and at a higher level of complexity than LOTE, Level 1. This is done through

lectures, workshops, tutorials and language tapes.

Course: ED41

Prerequisite: HUB418

Credit Points: 12

Contact Hours: 3 per week

■ HUB449 LOTE 3

At this level students are able to deal with more complex sociocultural information. In addition, they broaden their target language resource as well as develop an ability to use it; use more complex language structures and broader vocabulary; develop fluency; expand and fine-tune registers, genres, etc. and develop more theoretical/abstract discourse as the need arises in activities related to content.

Course: ED41

Prerequisite: HUB419

Credit Points: 12

Contact Hours: 3 per week

■ HUB600 AUSTRALIAN SOCIETY & CULTURE

Historical, political, economic and cultural information about Australia and Australians; egalitarianism; religion, frontiers and rural Australia; the historical and future role of technology in Australia.

Courses: ED50, HU20, IF36

Credit Points: 12

Contact Hours: 3 per week

■ HUB601 HUMAN IDENTITY & CHANGE

What it means to be human; ways human identities (e.g. cultural, sexual, professional) are created and transformed; issues of identity, morality and change confronting human units in their encounters with the demands of contemporary life.

Courses: HU20, IF36

Credit Points: 12

Contact Hours: 3 per week

■ HUB610 APPROACHES TO ASIA/PACIFIC STUDIES

General introduction to the history and emerging political economy of the Asia/Pacific region; historical core/periphery structures; the ascent and decline of powerful imperial and new Asian cores such as Japan; systemic and anti-systemic movements and Australia's particular role in this region.

Courses: ED50, ED51, HU20, IF36

Credit Points: 12

Contact Hours: 3 per week

■ HUB612 MODERN INDONESIAN STUDIES

An understanding of contemporary Indonesia; regional political and economic influences including ASEAN; domestic politics; demographic issues; Australia-Indonesian relationships.

Courses: ED50, ED51, HU20, IF36

Credit Points: 12

Contact Hours: 3 per week

■ HUB617 WOMEN, AID & DEVELOPMENT

Challenges existing notions of development; evaluates current models of development and aid in terms of their implications for women; suggests that real development for women and their dependants requires a woman-centred approach.

Courses: ED50, HU20, IF36

Credit Points: 12

Contact Hours: 3 per week

■ HUB618 ASIAN WOMEN: TRADITION, COLONISATION & REVOLUTION

Uses case studies to provide a broad analysis of Asian women's experiences of tradition, colonialism and revolution; highlights the linkages between traditional culture, colonialism and revolution; provides an appreciation of both the historical experiences and some of the contemporary concerns of Asian women.

Courses: ED50, HU20, IF36

Credit Points: 12

Contact Hours: 3 per week

■ HUB619 PACIFIC CULTURE CONTACT

Key concepts including mobility, religion, morality, leadership, civilisation, society, change and continuity; de-

velops an appreciation of culture and sensitivity towards those groups or individuals who do not share a particular cultural heritage; case studies and comparative analysis focus on the people of the Pacific at the time of initial European contact.

Courses: ED50, HU20, IF36

Credit Points: 12

Contact Hours: 3 per week

■ HUB620 THE PACIFIC SINCE 1945

Analyses the link between culture and history in a post-contact context of change and continuity in the contemporary Pacific; overviews the events since 1945 that are important in the lives of Pacific Island people; presents key concepts including mobility, adaptation, change, tradition, continuity, modernisation, conflict and independence.

Courses: ED50, HU20, IF36

Credit Points: 12

Contact Hours: 3 per week

■ HUB621 NORTH AMERICAN STUDIES

A comparative approach to the histories of Canada, the United States and Mexico; key themes include patterns of early settlement, the development of political institutions, the treatment of minorities, and the interaction of these three nations up to the present.

Courses: ED50, HU20, IF36

Credit Points: 12

Contact Hours: 3 per week

■ HUB622 LATIN AMERICAN STUDIES

Uses case studies dealing with Latin American history and political economy from pre-conquest period to the present day; focuses on US/Latin American relations and contemporary systemic/anti-systemic cases such as the national security state doctrines of authoritarian Chile/Argentina and radical Cuba and Nicaragua.

Courses: ED50, HU20, IF36

Credit Points: 12

Contact Hours: 3 per week

■ HUB623 ASIA/PACIFIC POLITICAL STUDIES

Studies the structural and ideological bases of Asia/Pacific leading countries within a broad world system overview; special emphasis on political models of development and cultural studies; case studies of systemic (e.g. Taiwan) and non-systemic models (e.g. NPA) are undertaken.

Courses: ED50, HU20, IF36

Credit Points: 12

Contact Hours: 3 per week

■ HUB624 ISLAM & POLITICS IN SOUTH-EAST ASIA

An advanced seminar in Asia Pacific Studies normally taken by third and fourth year (Honours) students.

Courses: HU20, HU21, ED50

Credit Points: 12

Contact Hours: 3 per week

■ HUB625 AMERICAN LITERATURE

Concentrates principally on twentieth century American literature in the years preceding World War II and in the postwar construction period to the present. Particular emphasis on major preoccupations in literature and on the ways in which writers have responded to, and interpreted, political and social currents in the pre- and post-World War II periods.

Courses: ED50, HU20

Credit Points: 12

Contact Hours: 3 per week

■ HUB626 CONTEMPORARY SOUTH-EAST ASIA

An introduction to Southeast Asia as a region focusing on geographic characteristics, recent political developments, population and urban studies, economic development and social and cultural characteristics.

Courses: HU20, IF26, ED50

Credit Points: 12

Contact Hours: 3 per week

■ HUB627 AUSTRALIA AND THE SOUTH PACIFIC

Critical analysis of the history of Australian bilateral and multilateral links with the Pacific islands region, including Pacific frontier theory, sub-imperialism, colonial rule and contemporary dialogue over aid, trade, regionalism, defence, cultural exchange and migration. The unit will focus on events from 1788 to the present.

Courses: HU20, IF36, ED50

Credit Points: 12 Contact Hours: 3 per week

■ HUB628 MODERN JAPAN

The history of nineteenth and twentieth century Japan; the range of contemporary issues confronting Japan, including those associated with Japan's increased power in the Asia/Pacific region. Where possible, primary source documentation is used to enhance historical understanding.

Courses: HU20, IF36, ED50

Credit Points: 12 Contact Hours: 3 per week

■ HUB629 MODERN CHINA

A historical survey of China during the nineteenth and twentieth centuries. The primary focus will be on the decline of the traditional Chinese state and the impact of foreign imperialism. Stress is placed on the growth of nationalism and the Chinese revolution. The modernisation of Chinese culture, the position of women and the forces which have brought China to resume its place as the major Asian power.

Courses: HU20, IF36, ED50

Credit Points: 12 Contact Hours: 3 per week

■ HUB630 GEOGRAPHY OF EAST ASIA

A geographical interpretation of the East Asia region covering China, Japan and Korea. This includes an examination of the region's physical landscapes, human population distribution, demographic and cultural change, environmental issues and the role of the East Asian countries in the geopolitics of the Asia-Pacific region.

Courses: ED50, IF36, HU20

Credit Points: 12 Contact Hours: 3 per week

■ HUB631 SEMINAR IN JAPANESE ISSUES

An advanced seminar in Asia Pacific Studies normally taken by third and fourth year (Honours) students.

Courses: HU20, HU21, ED50

Credit Points: 12 Contact Hours: 3 per week

■ HUB646 INTERNATIONAL INTENSIVE PROGRAM

Short period of intensive language study conducted at an approved institution in the country where the target language is used; aims to enhance language skills and introduce students to the culture of the country in an immersion situation.

Courses: BS50, ED50, HU20

Credit Points: 12 Contact Hours: 3 per week

■ HUB647 INTERNATIONAL SUMMER SCHOOL OR EQUIVALENT

This unit is held in residence at a designated foreign university for four to six weeks of concentrated learning; aims to enhance student's proficiency in the four macro skills; increases student's understanding of the cultural context in which the target language is used.

Courses: BS50, ED50, HU20 Credit Points: 24

■ HUB648 INTERNATIONAL SEMESTER OR EQUIVALENT

Students follow an approved course of study at a designated foreign university for a semester. The unit aims to improve language skills in an immersion situation and at the same time provide the cultural experience of living in the country of the language being studied for an extended period of time.

Course: ED50, HU20

Credit Points: 48

■ HUB649 HISTORY WRITING IN MODERN EUROPE

An advanced seminar in European Studies normally taken by third and fourth years (Honours) students.

Courses: HU20, HU21, ED50

Credit Points: 12 Contact Hours: 3 per week

■ HUB650 INTRODUCTORY INDONESIAN 1

This unit assumes no prior knowledge of Indonesian, and aims to equip beginning students with elementary communicative competence in a range of common everyday situations.

Courses: HU20, IF36, BS50, ED50, ED51

Credit Points: 12 Contact Hours: 4 per week

■ HUB651 INTRODUCTORY INDONESIAN 2

This unit expands beginners' repertoire of communicative competence into a wider range of situations. Relatively more emphasis upon speaking and listening rather than reading and writing.

Courses: HU20, IF36, BS50, ED50, ED51

Prerequisite: HUB650 or equivalent

Credit Points: 12 Contact Hours: 4 per week

■ HUB652 INDONESIAN LANGUAGE & CULTURE 1

This unit advances learners' competence to intermediate level, with some analytical focus on syntactic and morphological structures in Indonesian.

Courses: HU20, IF36, BS50, ED50, ED51

Prerequisite: HUB651 or equivalent

Credit Points: 12 Contact Hours: 4 per week

■ HUB653 INDONESIAN LANGUAGE & CULTURE 2

This unit continues to develop fluency in all macroskills to an intermediate level, with increased use of authentic source materials.

Courses: HU20, IF36, BS50, ED50, ED51

Prerequisite: HUB652 or equivalent

Credit Points: 12 Contact Hours: 4 per week

■ HUB654 INDONESIAN LANGUAGE & CULTURE 3

This unit continues to develop proficiency in all macroskills, using mainly authentic texts (written, audio and audio-visual).

Courses: HU20, IF36, BS50, ED50, ED51

Prerequisite: HUB653 or equivalent

Credit Points: 12 Contact Hours: 4 per week

■ HUB655 INDONESIAN LANGUAGE & CULTURE 4

The unit extends learners' proficiency, with almost exclusive use of authentic texts.

Courses: HU20, IF36, BS50, ED50, ED51

Prerequisite: HUB654 or equivalent

Credit Points: 12 Contact Hours: 4 per week

■ HUB656 INDONESIAN LANGUAGE & CULTURE 5

This unit enhances learners' linguistic skills to a level where they can read modern Indonesian sources, understand television programs, as well as discuss and write intelligently about issues.

Courses: HU20, IF36, BS50, ED50, ED51

Prerequisite: HUB655 or equivalent

Credit Points: 12 Contact Hours: 4 per week

■ HUB657 INDONESIAN LANGUAGE & CULTURE 6

This unit fine tunes learners' proficiency in all four macro skills and deals with contemporary issues almost entirely in the Indonesian language.

Courses: HU20, IF36, BS50, ED50, ED51

Prerequisite: HUB656 or equivalent

Credit Points: 12 Contact Hours: 4 per week

■ HUB660 INTRODUCTORY JAPANESE 1

Students with little or no previous experience in Japanese are introduced to the four skills of listening, speaking, reading and writing; the Hiragana script is studied from the outset and 120 Kanji are introduced; and appreciation of cultural aspects integrated into the course.
Courses: BS50, ED50, ED51, HU20, IF36
Credit Points: 12 **Contact Hours:** 4 per week

■ HUB661 INTRODUCTORY JAPANESE 2

Develops the four skills of listening, speaking, reading and writing using a communicative approach; Katakana and an additional 130 Kanji are introduced; cultural issues are integrated with relevant language situations.
Courses: BS50, ED50, ED51, HU20, IF36
Prerequisite: HUB660
Credit Points: 12 **Contact Hours:** 4 per week

■ HUB662 JAPANESE LANGUAGE & CULTURE 1

This unit is for students who have completed Year 12 Japanese (or equivalent); it consolidates and further develops the four skills of listening, speaking, reading and writing through an integrated approach; 150 additional Kanji are introduced; cultural aspects are studied in language situations.
Courses: BS50, ED50, ED51, HU20, IF36
Prerequisites: HUB661, Year 12 Japanese or equivalent
Credit Points: 12 **Contact Hours:** 4 per week

■ HUB663 JAPANESE LANGUAGE & CULTURE 2

Consolidates and develops listening, speaking, reading and writing skills through an integrated approach; 150 additional Kanji are introduced; cultural aspects are incorporated with relevant language situations.
Courses: BS50, ED50, ED51, HU20, IF36
Prerequisite: HUB662
Credit Points: 12 **Contact Hours:** 4 per week

■ HUB664 JAPANESE LANGUAGE & CULTURE 3

An intermediate level unit aiming enhancing students' language skills by concentrating on more complex grammatical structures; 150 additional Kanji are introduced; cultural aspects are incorporated with relevant language situations.
Courses: BS50, ED50, ED51, HU20, IF36
Prerequisite: HUB663
Credit Points: 12 **Contact Hours:** 4 per week

■ HUB665 JAPANESE LANGUAGE & CULTURE 4

In this intermediate level unit, students' language skills are further enhanced through authentic resources adapted for classroom use; 150 additional Kanji are introduced; cultural aspects are integrated with language materials.
Courses: BS50, ED50, ED51, HU20, IF36
Prerequisite: HUB664
Credit Points: 12 **Contact Hours:** 4 per week

■ HUB666 JAPANESE LANGUAGE & CULTURE 5

Extends language skills through exposure to the natural language of newspapers and television; students should know 1000 Kanji by the end of this unit.
Courses: BS50, ED50, ED51, HU20, IF36
Prerequisite: HUB665
Credit Points: 12 **Contact Hours:** 4 per week

■ HUB667 JAPANESE LANGUAGE & CULTURE 6

Focusing on the media, extends students' linguistic skills to a level where they can access authentic materials, express opinions and discuss issues; Kanji knowledge

is extended beyond 1000.

Courses: BS50, ED50, ED51, HU20, IF36

Prerequisite: HUB666

Credit Points: 12

Contact Hours: 4 per week

■ HUB670 INTRODUCTORY FRENCH 1

Designed for students who have had little or no previous experience of French; develops a basis for further language acquisition and stresses oral/aural skills with some introduction to reading comprehension.

Courses: BS50, ED50, ED51, HU20, IF36

Credit Points: 12

Contact Hours: 4 per week

■ HUB671 INTRODUCTORY FRENCH 2

Develops a range of language skills; stresses oral/aural skills; extends reading comprehension and begins the development of writing skills.

Courses: BS50, ED50, ED51, HU20, IF36

Prerequisite: HUB670

Credit Points: 12

Contact Hours: 4 per week

■ HUB672 FRENCH LANGUAGE & CULTURE 1

Designed to meet the needs of students who have completed Year 12 French (or equivalent); focuses on speaking, listening and reading skills.

Courses: BS50, ED50, ED51, HU20, IF36

Prerequisites: Year 12 French or equivalent

Credit Points: 12

Contact Hours: 4 per week

■ HUB673 FRENCH LANGUAGE & CULTURE 2

Continues the development of speaking, listening and reading skills. Attention is paid to writing skills. Aims to help students communicate orally with ease and confidence before embarking on a more sustained study of written French.

Courses: BS50, ED50, ED51, HU20, IF36

Prerequisite: HUB672

Credit Points: 12

Contact Hours: 4 per week

■ HUB674 FRENCH LANGUAGE & CULTURE 3

In-depth review of the expression of time in French through the study of a feature film and other forms of narrative. Further develops the four macro skills.

Courses: BS50, ED50, ED51, HU20, IF36

Prerequisite: HUB673

Credit Points: 12

Contact Hours: 4 per week

■ HUB675 FRENCH LANGUAGE & CULTURE 4

Equips students to debate issues or discuss texts, visual and written using verbal and non-verbal means; attention is paid to the four macro skills.

Courses: BS50, ED50, ED51, HU20, IF36

Prerequisite: HUB674

Credit Points: 12

Contact Hours: 4 per week

■ HUB676 FRENCH LANGUAGE & CULTURE 5

Individual study program on a topic selected in consultation with staff. Aims to develop advanced reading and writing skills.

Courses: BS50, ED50, ED51, HU20, IF36

Prerequisite: HUB675

Credit Points: 12

Contact Hours: 2 per week

■ HUB677 FRENCH LANGUAGE & CULTURE 6

This advanced unit explores the potential of French expression, verbal and non-verbal. It looks at gesture and idiomatic expressions, drawing on the satirical press, films, cartoons and theatre.

Courses: BS50, ED50, ED51, HU20, IF36

Prerequisite: HUB675

Credit Points: 12

Contact Hours: 2 per week

■ HUB678 FRENCH FOR BUSINESS AND THE PROFESSIONS

Equips students to use French in business or professional contexts. The focus is on: the professional experience of guest speakers; background information needed for

survival in the French-speaking business world; and everyday business documents.

Courses: BS50, HU20, IF36

Prerequisites: HUB675 (4 or better)

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB680 APPROACHES TO AUSTRALIAN STUDIES**

Introduces the Australian Studies major; focuses on cultural themes within Australian history; includes an examination of the shock felt by pre-1850s immigrants, racial conflict and naturalisation processes.

Courses: ED50, HU20, IF36

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB682 SOCIAL MOVEMENTS IN AUSTRALIA**

New social movements in Australia since the 1960s; includes green, women's, peace, Aboriginal and Third World development movements; comparison with overseas and old social movements.

Courses: ED50, HU20, IF36

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB683 AUSTRALIAN GEOGRAPHICAL STUDIES**

Expands the geographical understanding of students into the cultural area, enabling them to appreciate the significance and interrelationships of issues of people, land, resources, energy and technology.

Courses: ED50, HU20, IF36

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB685 AUSTRALIAN RESOURCE MANAGEMENT**

Considers the various development options open to Australia. Attention is paid to Australia's economic history and current economic structures.

Courses: ED50, HU20, IF36

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB687 CONTEMPORARY MORAL PROBLEMS**

Introduction to applied ethics and moral philosophy through an analysis of a range of contemporary issues within an Australian context, e.g. uses of technology, genetic engineering, nuclear energy, overpopulation, environmentalism, war, terrorism, civil disobedience, pacifism, racism, sexism, abortion, euthanasia, suicide and sexuality.

Courses: HU20, IF36

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB690 THEMES IN AUSTRALIAN HISTORY**

Covers historical and cultural material on Australian mythologies and historiographies; European and Aboriginal understandings of the land; Aboriginal mapping and art; the construction and importance of cities; ways in which notions such as motherhood were enlisted in nationalism.

Courses: ED50, HU20, IF36

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB691 WOMEN'S PAST - WOMEN'S HISTORY TO FEMINIST HISTORIOGRAPHY**

Challenges a masculine version of history; considers the historiographical debate on the development of women's history in the Australian context; explores a range of issues including case studies of women's issues and experiences; encourages the process of documenting women's history via testimony.

Courses: ED50, HU20, IF36

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB692 CONSPIRACY & DISSENT IN AUSTRALIAN HISTORY**

Uses case studies to reflect conspiracies as well as protest movements in nineteenth and twentieth century Australia; includes nineteenth century land grab conspiracies; Aboriginal resistance; anti-war movements; the Petrov affair; the 1975 dismissal.

Courses: ED50, HU20, IF36

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB693 AUSTRALIAN RACE RELATIONS**

Race relations within Australia before and after British settlement and locates material within a comparative international framework. Theories of race, trade routes, racial violence and resistance.

Courses: ED50, HU20, IF36

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB694 AUSTRALIAN POLITICS**

The political life of the Australian citizen; the democratic political traditions and institutional bases of Australian political life; the process by which political decisions get made at all levels of Australian politics.

Courses: HU20, IF36, ED50

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB700 ABORIGINAL & TORRES STRAIT ISLANDER CULTURE STUDIES**

An appreciation of the two distinct indigenous cultures of Australia; how external forces to Aboriginal and Torres Strait Islander cultures caused social, economic and political changes; traditional family life and organisation.

Courses: ED50, HU20, IF36

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB701 ABORIGINAL & TORRES STRAIT ISLANDER LITERATURE**

Despite the fact that it represents the indigenous culture of Australia, the oral tradition of Aborigines and Torres Strait Islanders has only recently begun to be appreciated. By examining this tradition, its continuation to the present day and its transformation into published texts, this unit seeks to open the eyes of students to a different world view.

Courses: ED50, HU20, IF36

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB702 THE AUSTRALIAN DREAMING: THE INDIGENOUS CONSTRUCTION**

A philosophical overview of Aboriginal and Torres Strait Islander culture; draws upon a variety of conceptual approaches; examines theories which underpin indigenous constructions of reality.

Courses: HU20, IF36

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB703 INDIGENOUS POLITICS & POLITICAL CULTURE**

Examines issues and influences underlying the world of indigenous politics: political representation; land rights; health; education; community development; criminal justice; culture and heritage. An Australian focus with New Zealand and North American comparisons.

Courses: HU20, IF36

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB710 AUSTRALIAN LITERARY STUDIES**

A critical appreciation of various texts from Australia's literary tradition; considers the impact of social values, political and artistic movements upon literature production and genres; the dichotomy of mainstream and marginalised writing in various groups and periods of Australia's cultural traditions.

Courses: ED50, HU20, IF36

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB711 AUSTRALIAN WOMEN'S WRITING**
The literary contribution of Australian women writers from the nineteenth and twentieth centuries to Australian culture and society; focuses on a number of significant texts that raise crucial issues in their representation of women's lives and identities.
Courses: ED50, HU20, IF36
Credit Points: 12 Contact Hours: 3 per week

■ **HUB712 AUSTRALIAN CHILDREN'S & ADOLESCENT FICTION**
Children's and adolescent novels within the cultural context of nineteenth and twentieth century Australia; focuses on textual analysis of major generic types; considers issues such as race, gender, class and regionalism in fiction for young Australians.
Courses: ED50, HU20, IF36
Credit Points: 12 Contact Hours: 3 per week

■ **HUB713 SEMINAR IN AUSTRALIAN URBAN STUDIES**
An advanced seminar in Australian Studies normally taken by third and fourth year (Honours) students.
Courses: HU20, HU21, ED50
Credit Points: 12 Contact Hours: 3 per week

■ **HUB714 ABORIGINAL COMMUNITIES IN CRISIS AND RECOVERY**
An advanced seminar in Australian Studies normally taken by third and fourth year (Honours) students.
Courses: HU20, HU21, ED50
Credit Points: 12 Contact Hours: 3 per week

■ **HUB720 APPROACHES TO EUROPEAN STUDIES**
A broad introduction to the major studies sequence in European studies; uses historical and literary perspectives to highlight major themes in the development of European society and culture.
Courses: ED50, HU20, IF36
Credit Points: 12 Contact Hours: 3 per week

■ **HUB721 THE CLASSICAL WORLD**
The emergence and development of European society from earliest times to 500 AD; in alternate semesters it examines the major political, social and economic trends in classical Greek or Roman society.
Courses: ED50, HU20, IF36
Credit Points: 12 Contact Hours: 3 per week

■ **HUB722 FOUNDATIONS OF MODERN EUROPE**
The formation of modern Europe from the late Middle Ages to the end of the nineteenth century; the emergence of secularism and the rise of nation states.
Courses: ED50, HU20, IF36
Credit Points: 12 Contact Hours: 3 per week

■ **HUB723 WAR & REVOLUTION IN EUROPE 1914-1945**
This subject selectively examines political, social, economic and intellectual developments in Europe from 1914-1945
Courses: HU20, IF36, ED50
Credit Points: 12 Contact Hours: 3 per week

■ **HUB724 NINETEENTH CENTURY ENGLISH LITERATURE & CULTURE**
Focuses on two major literary genres: the novel and poetry; their evolution and variety in a time of profound economic, political and social change in England between 1790 and 1880; examines the variety of response of a number of literary artists to these changes and the ways narrative and verse forms were adapted and evolved.
Courses: ED50, HU20, IF36
Credit Points: 12 Contact Hours: 3 per week

■ **HUB725 TWENTIETH CENTURY ENGLISH LITERATURE & CULTURE**
Critical analysis of key British literary texts of the twentieth century (prose, poetry, drama); the theoretical and cultural movements that underpin them.
Courses: ED50, HU20, IF36
Credit Points: 12 Contact Hours: 3 per week

■ **HUB726 EUROPEAN LITERATURE & SOCIAL CHANGE**
Uses a broadly defined European perspective to explore how literary texts respond to, influence and are in turn influenced by social and cultural forces; set texts are explored from a range of thematic perspectives: industrialisation and the impact of new technologies, war and civil unrest, political power and citizenship, colonialism and post-colonialism.
Courses: ED50, HU20, IF36
Credit Points: 12 Contact Hours: 3 per week

■ **HUB727 EUROPEAN LITERATURE & IDENTITY**
Explores selected European literary texts from different periods and regions with a focus on identity e.g. gender, individual development, sexual and social relations, normality and abnormality, crime and the problems of evil, imagination and fantasy.
Courses: ED50, HU20, IF36
Credit Points: 12 Contact Hours: 3 per week

■ **HUB728 POPULAR LITERATURE**
Explores the psychological, political and ideological functions of popular literature by studying texts from different popular genres (e.g. romance, crime fiction; spy thrillers; fantasy; science fiction; family sagas; horror; comics); methods of analysing the historical development of generic forms relating to the varying social contexts in which they are produced.
Courses: ED50, HU20, IF36
Credit Points: 12 Contact Hours: 3 per week

■ **HUB729 SHAKESPEARE**
Shakespeare is examined both in his own time and the present to analyse the dominance of this cultural icon; emphasises recent theoretical and performance strategies in Shakespearian genre studies.
Courses: ED50, HU20, IF36
Credit Points: 12 Contact Hours: 3 per week

■ **HUB730 WOMEN'S WRITING & REPRESENTATION**
Examines ways women have been represented in literary and non-literary texts; identifies cultural contexts in which women write and are represented; examines nineteenth and twentieth century texts by European writers by and about women.
Courses: ED50, HU20, IF36
Credit Points: 12 Contact Hours: 3 per week

■ **HUB735 INTRODUCTORY GERMAN 1**
An introductory unit in the German language for students with little or no previous knowledge of German; equips students with some of the basic communication skills for a variety of everyday situations.
Courses: BS50, ED50, ED51, HU20, IF36
Credit Points: 12 Contact Hours: 4 per week

■ **HUB736 INTRODUCTORY GERMAN 2**
An intensive introductory unit in the German language; develops basic communication skills.
Courses: BS50, ED50, ED51, HU20, IF36
Prerequisite: HUB735
Credit Points: 12 Contact Hours: 4 per week

■ **HUB737 GERMAN LANGUAGE & CULTURE 1**
Designed for students who have completed Year 12 Ger-

man or its equivalent; consolidates the four language skills of reading, writing, listening and speaking; introduces students to a selection of postwar literature from German-speaking countries.

Courses: BS50, ED50, ED51, HU20, IF36

Prerequisite: Year 12 German or equivalent

Credit Points: 12 **Contact Hours:** 4 per week

■ **HUB738 GERMAN LANGUAGE & CULTURE 2**

Continues the consolidation of the four macro skills; aims to further cultural awareness through a study of some examples of contemporary German literature from East and West Germany.

Courses: BS50, ED50, ED51, HU20, IF36

Prerequisite: HUB737

Credit Points: 12 **Contact Hours:** 4 per week

■ **HUB739 GERMAN LANGUAGE & CULTURE 3**

Develops linguistic competence in the German language to a higher level; equips students with the language skills necessary for more demanding linguistic interactions and situations; an introduction to a major period in the development of German culture through a study of the German enlightenment and classical and romantic German texts.

Courses: BS50, ED50, ED51, HU20, IF36

Prerequisite: HUB738

Credit Points: 12 **Contact Hours:** 4 per week

■ **HUB740 GERMAN LANGUAGE & CULTURE 4**

Develops linguistic competence in the German language to a higher level; equips students with the language skills necessary for more demanding linguistic interactions; introduction to the major cultural traditions of the nineteenth century through a study of a selection of nineteenth century texts.

Courses: BS50, ED50, ED51, HU20, IF36

Prerequisite: HUB739

Credit Points: 12 **Contact Hours:** 4 per week

■ **HUB741 GERMAN LANGUAGE & CULTURE 5**

Develops linguistic competence in the German language to a more advanced level by extending students' vocabulary and range of registers and expressions; introduces the culture of modernity through the literary movements of modernism, expressionism and Viennese fin de siècle and the avant-garde.

Courses: BS50, ED50, ED51, HU20, IF36

Prerequisite: HUB740

Credit Points: 12 **Contact Hours:** 4 per week

■ **HUB742 GERMAN LANGUAGE & CULTURE 6**

Develops linguistic competence in the German language to a more advanced level necessary for dealing with more complex linguistic interactions and texts; provides a survey of postwar East and West German literature and a discussion of the problems of writing after Auschwitz and under the censorship.

Courses: BS50, ED50, ED51, HU20, IF36

Prerequisite: HUB740

Credit Points: 12 **Contact Hours:** 4 per week

■ **HUB743 NATIONS AND NATIONALISM**

This course selectively examines political, social, economic and intellectual developments in modern Europe, from the French Revolution to the era before the Great War of 1914-18

Courses: HU20, IF36, ED50

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB750 UNDERSTANDING ETHICS**

Introduces students to the theory and practice of moral

decision-making; covers questions such as 'Why be moral?' 'What is the good or the right?' and 'How do we make moral decisions?'; questions are related to current practical ethical dilemmas.

Courses: HU20, IF36

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB751 PUBLIC & PROFESSIONAL ETHICS**

The ethical dimensions of public and professional life; the ethical rights and responsibilities of the individual citizen and the state within a liberal democracy; the ethical responsibilities of institutional and professional agencies and the roles and ethical responsibilities of individual citizens in such agencies.

Courses: HU20, IF36

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB752 THE JUST SOCIETY**

Justice and concepts such as equity in various ethical and political traditions are applied to recent policy debates about affirmative action, the criminal justice system, political practice, health and the environment.

Courses: HU20, IF36

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB753 ETHICAL DECISION-MAKING**

The ways in which various decision-making practices can be morally grounded; the practical value of such procedures for human transformation and emancipation; the ways in which decision-making practices either sustain or subvert moral communities.

Courses: HU20, IF36

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB754 FEMINISM & ETHICS**

The impact of the feminist movement on ethical and political theory; What does it mean to say the differences between men and women are natural or socially cultivated? What are the normative implications of these differences? What counts as equality between the sexes? Do women think differently about ethical situations than men?

Courses: HU20, IF36

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB755 VULNERABLE IDENTITIES**

Vulnerability and the experiences of persons who are vulnerable due to exploitation, abandonment, confusion or suffering and other unethical practices; ways of relating with the vulnerable; students develop a richer appreciation of others as well as themselves.

Courses: HU20, IF36

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB756 SEMINAR IN ETHICS AND PUBLIC PHILOSOPHY (ADVANCED SEMINAR)**

An advanced seminar in Applied Ethics normally taken by third and fourth year (Honours) students.

Courses: HU20, HU21, ED50

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB757 ETHICS, TECHNOLOGY AND THE ENVIRONMENT**

How decisions about new technologies and the environment are based not solely on factual evidence but also on ethical judgements; ethical aspects of issues such as genetic engineering, free-riding problems with 'caring for' the environment, human obligations toward non-human animals, whether wilderness areas have value independent of their value to humans, and whether a proper concern for the environment requires a new 'environment or ecological ethic'.

Courses: HU20, IF36

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB758 SEMINAR IN HEALTH CARE ETHICS**

An advanced seminar in Applied Ethics normally taken

by third and fourth year (Honours) students.

Courses: HU20, HU21, NS40, NS48

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB760 APPROACHES TO FEMINIST STUDIES**

Introduces a broad spectrum of issues related to feminist studies and to the major theoretical debates about gender in fields including literature, history, psychology, philosophy, sociology and ethics.

Course: HU20

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB761 NINETEENTH CENTURY COMPARATIVE WOMEN'S WRITING**

An advanced seminar in Feminist Studies normally taken by third and fourth year (Honours) students.

Courses: HU20, HU21, ED50

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB762 SEMINAR IN WOMEN'S HISTORICAL PERSPECTIVE**

An advanced seminar in Feminist Studies normally taken by third and fourth year (Honours) students.

Courses: HU20, HU21, ED50

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB763 SEMINAR IN GENDER AND REPRESENTATION**

An advanced seminar in Feminist Studies normally taken by third and fourth year (Honours) students.

Courses: HU20, HU21, ED50

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB772 INTRODUCTION TO POLITICS: POLITICAL IDEOLOGIES**

The political spectrum of the traditional Left-Right-Centre ideologies including Fascism; Conservatism; Liberalism; Socialism; Communism; Anarchism are discussed, along with cross-spectrum ideologies such as Feminism; Imperialism; Racism; Environmentalism. The course concludes with reference to post-modernist politics and its implications for the traditional ideological spectrum.

Courses: HU20, IF36, ED50

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB800 POLITICS & MARKETS**

Introduces major debates in political economy about mixed economy and balance between collective and individual provision; theories of production and consumption, modes of production and regulation, studies of public intervention.

Course: HU20

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB801 POLITICS & CONSUMPTION**

Forms and patterns of consumption of market and social goods, income distribution and measures of quality and level of living; concepts of social wage, theories of public revenue and organisation of public services.

Course: HU20

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB802 POLITICS & PRODUCTION**

Political economy of production; form of economic calculation and theories of value, profit and interest; ownership and control of production in market and non-market situations.

Course: HU20

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB803 PATTERNS OF REGULATION**

Examination of regulatory strategies; political economy of economic and social compromises in advanced countries; strategies of regulation in domestic economies; case studies of media, public health, urban development and transport.

Course: HU20

Credit Points: 12

Contact Hours: 3 per week

■ **HUB900 RESEARCH, CONTEXTS AND ISSUES**

An advanced introduction to research activity and scholarly discourse as practised in a wide range of disciplines relevant to study in the humanities including the nature of humanities research; research methodologies and philosophies; issues and theoretical debates; community links; public policy dimensions of social inquiry and humane studies; salient contemporary concerns relating to equity, cultural diversity and gender.

Course: HU21 **Prerequisite:** HU20 or equivalent

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB901 LITERATURE REVIEW**

A supervised program in the Honours student's chosen area of specialisation. An assessed critical paper on literature relevant to the Honours dissertation topic will be prepared.

Course: HU21

Prerequisite: HU20 or equivalent

Credit Points: 12

■ **HUB902 HONOURS DISSERTATION 1**

Supervised design and initial development of Honours dissertation leading to completion of a thesis outline, including synopses and projected chapters, and a statement of objectives, methods and sources

Course: HU21

Prerequisite: HU20 or equivalent

Credit Points: 12

■ **HUB903 HONORS DISSERTATION II**

Supervised research and writing of the Honours dissertation, normally between 12 000 and 15 000 words.

Course: HU21

Prerequisite: HU20 or equivalent,

HUB901 and HUB902

Credit Points: 36

■ **HUB904 HONOURS SEMINAR**

Weekly discussion and presentations relating to research and writing of the Honours dissertation.

Course: HU21

Prerequisite: HU20 or equivalent and

HUB900

Credit Points: 12

Contact Hours: 3 per week

■ **HUB905 INTERNSHIP**

Supervised experience in a working environment related to an Honours student's field of research and culminating in a written report and/or project.

Course: HU21

Prerequisite: HU21 or equivalent

Credit Points: 12

■ **HUB906 OVERSEAS STUDY**

An approved course of study for language students in an overseas tertiary institution offering instruction in the target language. Students undertaking this unit will be required to take HUB901 and HUB902 in distance mode, but will not do HUB900.

Course: HU21

Prerequisite: HU21 or equivalent

Credit Points: 24

■ **HUB952 INTERNSHIP PROGRAM 1**

This is an opportunity for students to be placed in an appropriate off-campus situation in work related to their studies. This unit may be taken over one semester or extended to cover two. Able to be taken either in semester 1 or 2.

Credit Points: 24

■ **HUB953 INTERNSHIP PROGRAM II**

This is an opportunity for students to be placed in an appropriate off-campus situation in work related to their studies. Able to be taken in either semester 1 or 2.

Credit Points: 12

■ **HUP001 ETHICS & HUMAN RELATIONSHIPS**

Philosophical approaches to human relationships; moral

philosophy and education; development of an integrated and clearly articulated agreement for a philosophy of human relationship education.

Courses: ED22, ED50, ED67

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUP002 PUBLIC SECTOR ETHICS**

Exploration of conceptual and theoretical issues; practical dilemmas and strategies for institutionalising ethics in the public sector.

Course: BS83

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUP003 ETHICS: THEORY & PRACTICE**

The theory and practice of moral decision-making; current ethical issues.

Course: BS30

Credit Points: 12 **Contact Hours:** 3 per week

■ **HUP004 HEALTH CARE ETHICS & BIOETHICS**

Bioethics in the social context; the process of moral decision-making; ethics and professional nursing practice.

Course: BS30

Credit Points: 12 **Contact Hours:** 3 per week

■ **IFB880 PROJECT**

Students undertake a project requiring research, investigation or design of some topic or problem of interest to the profession.

Courses: IF24, IF25

Prerequisites: Successful completion of units totalling not less than 120 hours of weekly contact time.

Credit Points: 24 **Contact Hours:** 2 per week

■ **IFN001 ADVANCED INFORMATION RETRIEVAL SKILLS**

This unit provides postgraduate research students with the skills to implement a through literature search in their research area and to set up a personal system for managing the references collected. The seven modules which form this unit include: using the QUT libraries; indexing and abstract services; electronic information retrieval; developing a current awareness strategy; thesis writing; personal file management; evaluating information.

Courses: BN73, BN78, PS69, SC60, SC80

Credit Points: 4 **Contact Hours:** 2 per week

■ **IFN100 FULL-TIME MASTERS' RESEARCH (JUSTICE STUDIES)**

This unit provides full-time postgraduate research students with study in a relevant area leading to the development of a thesis of not less than 50 000 words. Relevant areas include criminology, law enforcement, intelligence and security, corrections and legal and justice policy.

Course: JS52

Credit Points: 96

■ **IFN101 FULL-TIME MASTERS' RESEARCH (JUSTICE STUDIES) (EXTENSION)**

This unit provides full-time postgraduate research students with study in a relevant area leading to the development of a thesis of not less than 50 000 words. Relevant areas include criminology, law enforcement, intelligence and security, corrections and legal and justice policy.

Course: JS52

Credit Points: 96

■ **IFN200 PART-TIME MASTERS' RESEARCH (JUSTICE STUDIES)**

This unit provides full-time postgraduate research students with study in a relevant area leading to the development of a thesis of not less than 50 000 words. Relevant areas include criminology, law enforcement, intelligence and security, corrections and legal and justice policy.

Course: JS52

Credit Points: 96

■ **IFN201 PART-TIME MASTERS' RESEARCH (JUSTICE STUDIES) (EXTENSION)**

This unit provides full-time postgraduate research students with study in a relevant area leading to the development of a thesis of not less than 50 000 words. Relevant areas include criminology, law enforcement, intelligence and security, corrections and legal and justice policy.

Course: JS52

Credit Points: 96

■ **IFP222 PROJECT**

This unit provides students with the opportunity to gain insight and improve their understanding of quality management practices through the study of workplace quality related problems. Students are given assistance to develop their capacity to apply ideas and knowledge gained during the course and to improve their communication and writing skills in furnishing a detailed project report.

Course: IF69 **Prerequisites:** HRB131 or HRN105

Credit Points: 12 **Contact Hours:** 3 per week

■ **ITB001 COMPUTING PRACTICE (NOTE) 1**

Linked with unit ITB002.

■ **ITB002 COMPUTING PRACTICE (NOTE) 2**

These units are designed to coordinate the practical aspects of the lecture material presented so that students both develop essential practical skills and benefit from cross-fertilisation of the individual units.

Course: BN10

Credit Points: 6 **Contact Hours:** 3 per week

■ **ITB101 LABORATORY 1 (COMPUTING ENVIRONMENTS)**

Professionals in information technology must have an ability to work in a variety of computing environments and to utilise general application packages. This unit provides students with practical experience in a range of computing environments from personal computers to mainframes. Students are encouraged to learn to work independently, adhere to appropriate standards, make use of relevant documentation and document their work in the form of structured technical reports. Students learn to connect to services directly and via networks, to use the basic functions of typical operating systems including file and directory manipulation, customisation of environments and the principles of backing-up and recovery. Students use the basic functions of existing databases, wordprocessors and spreadsheets.

Courses: IF33, IF38, IF54, IT20

Credit Points: 12 **Contact Hours:** 3 per week

■ **ITB102 LABORATORY 2 (COMPUTER APPLICATIONS)**

Professionals in information technology must have an ability to design and implement computer solutions for various applications using a variety of computing languages, systems and environments. Students are provided with a practical experience in the design, implementation and testing of software systems. Emphasis is on design documentation, user documentation, programming style, test documentation, the use of diagnostic aids, software monitors, analysis of results and test coverage, and the oral and written presentation of results.

Courses: IF25, IF33, IF38, IF54, IT20

Prerequisites: ITB101, ITB210, ITB410

Credit Points: 12 **Contact Hours:** 3 per week

■ **ITB210 FORMAL REPRESENTATION**

This unit provides a foundation with regard to the specification and implementation of information systems. As such, it gives an introduction to topics built on subsequent units, notably those in database and system analysis and design. Topics covered include models; facts;

sets; relations; relational calculus; SQL; defining the database; referential integrity; knowledge; schemata; state transitions.

Courses: IF25, IF33, IF38, IF54, IT20

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: ITN210

■ ITB220 DATABASE DESIGN

Covers the conceptual design of a database and its implementation in either relational, network or hierarchical logical file design; network and hierarchical database systems in detail; additional relational system techniques.

Courses: IF33, IF38, IF54, IT20, IT40

Prerequisite: ITB210

Credit Points: 12

Contact Hours: 3 per week

■ ITB221 LABORATORY 3 (COMMERCIAL PROGRAMMING)

Extends student skills in program design and implementation by applying them to typical commercial problems through a widely used third generation language. The task-oriented approach supplies a vehicle for reinforcing students' knowledge of elementary design and planning theory.

Courses: BS50, IF33, IF38, IT20

Prerequisites: ITB210 and ITB410

Credit Points: 12

Contact Hours: 3 per week

■ ITB222 SYSTEMS ANALYSIS & DESIGN 1

Develops basic systems development skills by teaching a methodology and techniques of systems analysis and design and gives an introduction to all phases of the classical systems development life cycle. The aim is to give students a balanced overview of the process of analysing and designing information systems, while ensuring that they develop the necessary skills to apply the major techniques to simple problems. Emphasis is placed on the practical application of techniques to real-world problems.

Courses: BS50, IF38, IT20

Prerequisites: BSB118, ITB210

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: ITB321 and ITN211

■ ITB223 LABORATORY 4 (4GL PROGRAMMING)

Introduction to the role of application generators and Fourth Generation Language technology in developing information systems. As well as using these tools to create programs from detailed specifications, students develop standards for comparing the applicability of one environment to another.

Courses: IF33, IF38, IT20

Prerequisite: ITB220

Credit Points: 12

Contact Hours: 3 per week

■ ITB224 SYSTEMS ANALYSIS & DESIGN 2

Expands upon the systems analysis and design techniques introduced in ITB222. Also, alternative approaches practised in industry and other topics of importance are introduced. The aim is to provide students who already have an overview of the unit with an in-depth knowledge of key areas of systems analysis and design. Emphasis is placed on the practical application of techniques to problems.

Courses: IF33, IT20

Prerequisite: ITB222

Credit Points: 12

Contact Hours: 3 per week

■ ITB230 PROJECT

The ability to apply knowledge and skills to real-life situations is essential for information systems professionals. A six-month project, under academic supervision, is considered useful in developing students' ability to apply their knowledge and skills.

Courses: IF33, IF38, IT20

Prerequisite: Successful completion of at least 72 credit

points from the Information Systems major or in IF33
Credit Points: 12

■ ITB231 APPLICATIONS DEVELOPMENT

Synthesises techniques and theory learned in earlier units by providing an opportunity for students to integrate these skills through team-based development of a major online system processing database. Requires students to re-examine major design, programming and planning issues within the context of a 4GL software environment.

Course: IT20

Prerequisites: ITB223, ITB224

Credit Points: 12

Contact Hours: 3 per week

■ ITB232 DATABASE MANAGEMENT

Examination of the functions of database management systems; query optimisation; concurrency control; transaction processing; crash recovery; security and integrity; the fundamentals of physical file organisation.

Courses: IF33, IT20, IT40

Prerequisites: ITB233 or IT421

Credit Points: 12

Contact Hours: 3 per week

■ ITB233 FILE STRUCTURES

Examination of file structures and their processing; the various forms of persistent storage (conventional disks, tapes and CDs); different approaches to file indexing; tree structured storage; the cost of accessing these structures is estimated.

Courses: IF38, IT20, IT40

Prerequisites: ITB220, ITB221

Credit Points: 12

Contact Hours: 3 per week

■ ITB235 MULTIMEDIA SYSTEMS TECHNOLOGIES

Image, sound and video now make up a new dimension in computer stored databases. The technical problems of dealing with these new media in a digital way pose a challenge to information technologists. This unit introduces interactive multimedia system technologies and provides students with the basic knowledge required to contend with existing and future technical problems. Students integrate this knowledge in creating an interactive multimedia system.

Course: IT20

Credit Points: 12

Contact Hours: 3 per week

■ ITB236 OBJECT-ORIENTATED ANALYSIS & DESIGN

The goal is to develop basic skills in methodologies and techniques of object-orientated analysis and design. Covers all phases of the object-orientated software development life cycle.

Course: IT20

Prerequisite: ITB422

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: ITB448 and ITN221

■ ITB240 PROJECT

The ability to apply knowledge and skills to real-life situations is essential for information systems professionals. A six-month project, under academic supervision, is considered useful in developing students' ability to apply their knowledge and skills.

Course: IT20

Prerequisites: Completion of at least 72 credit points from the Information Systems major

Credit Points: 12

■ ITB241 INFORMATION SYSTEMS MANAGEMENT

Information systems practitioners have responsibility for the acquisition of computer hardware and software and for its effective and efficient use. Many practitioners also have responsibility for managing other information systems personnel. The knowledge and skills relevant to these planning, organising and staffing responsibilities are covered.

Courses: IF33, IF38, IT20

Prerequisites: Completion of at least 60 credit points from the Information Systems major

Credit Points: 12 **Contact Hours:** 3 per week

■ **ITB242 DECISION SUPPORT SYSTEMS**

There is increasing pressure for computer use to be closely aligned to organisational goals. Associated with this is an increasing emphasis on the computer assisting directly in the decision-making process. This unit addresses issues relating to these factors.

Courses: BS50, IT20 **Prerequisite:** ITB222
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITB243 KNOWLEDGE-BASED SYSTEMS**

Examination of the requirements for and development of knowledge-based systems in modern mainstream computing; provides an understanding of the techniques used in capturing and automating knowledge; and gives practical experience in designing, implementing and maintaining knowledge-based systems using a variety of software tools.

Course: IT20 **Prerequisite:** ITB222
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: ITB449

■ **ITB244 SPECIAL TOPIC 1**

This unit is linked with unit ITB245.

■ **ITB245 SPECIAL TOPIC 2**

This unit is linked with unit ITB244. These units are designed to allow for the significant development of, or emphasis in, business computing not dealt with in other course units. Selected topics and study areas are offered as required and when the necessary expertise is available. See School of Information Systems announcements for details of topics being offered.

Course: IT20
Prerequisites: See School announcements
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITB246 UNIX & C**

Introduction to the Unix operating system environment and to the C programming language. It covers the basics of both, and advanced topics relevant to software development under Unix and C. Emphasis is placed on the production of high quality software and documentation.

Course: IT20 **Prerequisites:** ITB101, ITB411
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: ITB422 and ITB448

■ **ITB247 PROJECT**

This unit provides for students to undertake a two-semester project. The work in one semester can be followed up in the second, or students can extend their practical skills through the second semester project.

Course: IT20
Prerequisites: Completion of at least 60 credit points from the Information Systems major
Credit Points: 24

■ **ITB249 THEORETICAL FOUNDATIONS OF DATABASE SYSTEMS**

Covers the theoretical foundations for the design, analysis and the unprocedural languages used in modern database systems; set theory; abstract algebra and theory of algorithms.

Course: IT20 **Prerequisite:** ITB220
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITB310 INFORMATION MANAGEMENT 1**

The concept of information management has emerged from a number of disciplines which have become more associated as a result of the development of information technologies. This unit reviews this development, and introduces the principles of information management as

they are presently defined. It therefore identifies the basic processes involved in handling information in the context of an information life cycle, and introduces the concept of managing information as an organisational resource.

Courses: IF33, IF38, IF54, IT20
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITB320 LABORATORY 3 (DATABASE APPLICATIONS)**

Graduates from the course are expected to have skills in the creation, maintenance and utilisation of databases of various types. This unit gives them practical exposure to the tasks involved using higher level applications programming environments.

Courses: IF52, IF54, IT20 **Prerequisite:** ITB102
Corequisite: ITB220
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITB321 SYSTEMS ANALYSIS**

Information management draws on systems analysis as a central resource. Many of the techniques applied in systems analysis translate to information management. This unit provides an introduction to all phases of the classical systems development life cycle: this gives students a balanced overview of the process of analysing information systems, while ensuring that students develop the necessary skills to apply the major techniques to information management problems.

Courses: IF54, IT20
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: ITB222 and ITN211

■ **ITB322 INFORMATION RESOURCES**

Examination of the ability to obtain accurate, up-to-date, business information on an ongoing basis which is today accepted as an important component of competitive success. A variety of computer and documentary sources are investigated, and information retrieval techniques are learnt.

Course: IT20 **Prerequisite:** ITB310
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITB323 LABORATORY 4 (INFORMATION SUPPORT METHODS)**

Provides students with practical exposure to a range of methods that are used to support information management implementations, including data dictionary and repository maintenance, thesaurus construction and maintenance, and interface development for Internet tools.

Courses: IF52, IF54, IT20 **Prerequisite:** ITB320
Corequisite: ITB520
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITB330 INFORMATION ISSUES & VALUES**

Concepts of information and the associated technology create fundamental issues for society, particularly in the legal, political and social arenas. Exploration of the development of such concepts in order to create an awareness of both the indirect and direct impacts of information and the associated technology. Such an awareness is crucial in the effective direction of management of information.

Courses: IF52, IF54, IT20 **Prerequisite:** ITB322
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITB331 INFORMATION MANAGEMENT 2**

Covers auditing information resources in an organisation; relates information provision to the information needs of end users, as well as to the strategic objectives of organisations.

Courses: IF52, IF54, IT20 **Prerequisite:** ITB310
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITB340 PROJECT**

The ability to apply knowledge and skills to real-life situ-

ations is essential for information management professionals. A one-semester project, under academic supervision, is considered useful in developing students' ability to apply their skills.

Course: IT20

Prerequisites: Completion of at least 72 credit points from the Information Management major

Credit Points: 12

■ **ITB341 INFORMATION MANAGEMENT 3**

Pulls together many of the themes previously identified in the course of the Information Management major, with particular reference to information as a commodity and its use in strategic planning and enterprise information modelling. Functions and practices of management that relate to provision of information services, and utilisation of technology to support them.

Courses: IF52, IF54, IT20 **Prerequisite:** ITB331

Credit Points: 12 **Contact Hours:** 3 per week

■ **ITB342 SPECIAL TOPIC (INFORMATION MANAGEMENT)**

Covers aspects of information management of specific interest at that time. Makes allowances for significant developments or emphasis in information management not included in the remainder of the course program.

Course: IT20

Prerequisites: Topic dependant

Credit Points: 12 **Contact Hours:** 3 per week

■ **ITB348 PROJECT**

Allows students to undertake a large project in one semester.

Course: IT20

Credit Points: 24

■ **ITB350 PROJECT-H**

The ability to apply knowledge and skills to real-life situations is essential for people planning to work as information management professionals. A one-semester project, under academic supervision, is considered useful in developing students' ability to apply their knowledge and skills. As this unit is for students intending to proceed to the Honours course, this project must include an evaluative component.

Course: IT20

Prerequisites: Completion of at least 72 credit points from the Information Management major and two Pre-Honours units

Credit Points: 12

■ **ITB351 INFORMATION MANAGEMENT 3H (STRATEGY & PLANNING)**

Pulls together many of the themes previously identified in the course of the Information Management major, with particular reference to information as a commodity and its use in strategic planning and enterprise information modelling. Functions and practices of management that relate to provision of information services, and utilisation of technology to support them, are dealt with. In order to prepare students who are intending to proceed to an Honours program, this unit addresses performance analysis and evaluation work in more depth than the standard version of the course.

Course: IT20

Prerequisite: ITB331

Credit Points: 12 **Contact Hours:** 3 per week

■ **ITB352 LABORATORY 4H (INFORMATION SUPPORT METHODS & EVALUATION)**

Provides practical exposure to a range of techniques that are used to support information management implementations including data dictionary and repository maintenance, thesaurus construction and maintenance and interface development for Internet tools. In order to prepare students who are intending to proceed to an Honours program, a greater amount of evaluative work is introduced in the exercises and assessment undertaken.

Course: IT20

Credit Points: 12

Prerequisites: ITB320

Contact Hours: 3 per week

■ **ITB411 SOFTWARE DEVELOPMENT 2**

Quality software development increasingly requires design of algorithms using modules, and algorithms and data-structures for building modules. Provides the foundation knowledge for the external and internal perspective of software modules in a system context. Provides students with an understanding of modules in the context of programmable systems. The external view and internal view of modules and their realisation in a modular programming language are covered. Abstract data types, specification of interfaces and methods for achieving program correctness provide the theoretical basis. Standard data structure modules are examined.

Courses: IF25, IF33, IF38, IF54, IT20

Prerequisite: ITB410

Credit Points: 12

Contact Hours: 3 per week

■ **ITB412 TECHNOLOGY OF INFORMATION SYSTEMS**

Computer hardware and system software together provide the context within which computer applications operate. Topics include: the von Neuman model; instruction execution; registers and addressing modes; program and data representation; assembly language programming; i/o, interrupts and DMA; introduction to boolean algebra and computer hardware; FSMs; hard-wired versus microprogrammed control; i/o and secondary storage devices; advanced computer architectures; networking.

Courses: IF25, IF33, IF38, IF54, IT20

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: ITN411

■ **ITB420 COMPUTER ARCHITECTURE**

Extends the introductory treatment of computer hardware and system software given in the prerequisite unit. A study of the following concepts: virtual machine architecture, device handling and memory management.

Courses: IF25, IT20

Prerequisite: ITB412

Credit Points: 12

Contact Hours: 3 per week

■ **ITB421 DATA STRUCTURES & ALGORITHMS**

Quality software development requires the design and implementation of efficient data structures with their associated algorithms. Builds upon the concepts of encapsulation and abstraction which were introduced in ITB411 by examining a number of implementations of the Table abstraction and evaluates the efficiency of each implementation.

Courses: IF25, IT20

Prerequisite: ITB411

Credit Points: 12

Contact Hours: 3 per week

■ **ITB422 LABORATORY 3 (ADTS IN A UNIX ENVIRONMENT)**

Extends students' knowledge of the Unix environment and introduces the language C, with an emphasis on the implementation of ADTs in that language. Students obtain extensive experience with this important practical language, including documentation and report writing. Topics covered include the Unix environment, the shell and shell programming; the language C; implementation of a variety of data structures in C; generic ADTs; programming styles, documentation and standards.

Courses: IF25, IT20

Prerequisites: ITB411 and ITB102

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: ITN410 and ITB246

■ **ITB423 LABORATORY 4 (SOFTWARE DEVELOPMENT)**

Consolidates the software engineering principles studied in earlier units as well as augmenting the material in

ITB424. Provides students with an opportunity to work in small groups on a major project which requires them to take a problem from statement to a well documented and researched solution.

Courses: IF25, IT20 **Prerequisites:** ITB422, ITB424
Credit Points: 12 **Contact Hours:** 3 per week

■ ITB424 SOFTWARE ENGINEERING PRINCIPLES

Examination of the problems of developing and maintaining reliable large-scale software product and the techniques needed to overcome them, as students need to appreciate the seriousness of the problem, and the value of a disciplined approach to the solution. Students are made aware of the variety of tools and methodologies to support software development.

Courses: IF25, IT20 **Prerequisite:** ITB421
Credit Points: 12 **Contact Hours:** 3 per week

■ ITB430 CONCURRENT SYSTEMS

Examination of the process structure of concurrent systems and the symbiosis of hardware and system software required to support such systems. Topics include: concurrency, processes and process synchronisation; interrupt handling; resource management, deadlock; realtime and concurrent programming in Modula-2 and process kernels; specification of concurrent systems; realisation of process and resource management principles in contemporary operating systems; multiprocessor and distributed systems with special reference to multiprocessor UNIX systems.

Courses: IF25, IT20 **Prerequisite:** ITB421
Credit Points: 12 **Contact Hours:** 3 per week

■ ITB431 PROGRAMMING LANGUAGE PARADIGMS

Introduction to non-procedural language paradigms; viz functional logical and object-oriented programming techniques. Each is studied in the context of a well-known computer language with its computational environment. A major component of this unit is laboratory based. For each paradigm, substantial program development is included.

Courses: IF25, IT20 **Prerequisite:** ITB411
Credit Points: 12 **Contact Hours:** 3 per week

■ ITB440 LANGUAGES & LANGUAGE PROCESSING

Syntax-directed programs permeate computing – examples are editors, formatters, command interpreters and compilers. In order to rapidly and reliably create such tools, it is necessary to understand the underlying theory of language definition, recognising automata and grammar classifications, as well as the practical realisation of recognisers in stylised, reusable code.

Courses: IF25, IT20 **Prerequisite:** ITB421
Credit Points: 12 **Contact Hours:** 3 per week

■ ITB441 GRAPHICS

Examines the nature of computer graphics hardware and software and the design and implementation of computer graphics software so as to enable students to implement graphics systems in their application areas. Topics include: graphics hardware; graphics Kernel System and Phigs; fundamental algorithms for 2-D graphics; 3-D transformations; curve and surface modelling; colour models; hidden surface removal.

Courses: IF23, IF52, IT20 **Prerequisite:** ITB422
Credit Points: 12 **Contact Hours:** 3 per week

■ ITB442 FOUNDATIONS OF ARTIFICIAL INTELLIGENCE

As artificial intelligence is coming out of the laboratory into the marketplace, it is important that students are exposed to the major ideas of artificial intelligence and

in particular to the role of knowledge engineering in the design of practical knowledge-based systems. This unit provides a broad and comprehensive introduction to the field of artificial intelligence.

Courses: ED50, IF23, IT20 **Prerequisite:** ITB431
Credit Points: 12 **Contact Hours:** 3 per week

■ ITB443 SYSTEMS PROGRAMMING

Concurrent programming is the basis for operation system implementations, much systems programming and parallel application programming. It is a central idea in advanced computer science and an important concept in multiprocessor computers and parallel computer hardware. This unit builds upon previous introduction to concurrent systems. Introduces systems programming in an operating system that supports processes and inter-process communications. Topics covered include a review of UNIX operating system commands; process and file management; UNIX administration, security; shell programming; the C/UNIX interface; remote procedure calls.

Courses: IF23, IT20 **Prerequisites:** ITB422
Credit Points: 12 **Contact Hours:** 3 per week

■ ITB444 SPECIAL STUDIES 1

Aspects of current scientific interest; making allowances for significant developments in computing science not provided for in the remainder of the course program. Details of topics are published before the start of each semester.

Courses: IF23, IT20 **Contact Hours:** 3 per week
Credit Points: 12

■ ITB445 SPECIAL STUDIES 2

Aspects of current scientific interest; making allowances for significant developments in computing science not provided for in the remainder of the course program. Details of topics are published before the start of each semester.

Courses: IF23, IT20 **Contact Hours:** 3 per week
Credit Points: 12

■ ITB446 PROJECT

Analysis, design and programming skills, and the underlying theory, are presented in various units; practice in those units naturally emphasises their particular specialisation. A project unit brings many of those skills together in a practical exercise of greater size and complexity, emphasising their complementary nature and the need for careful management. Students, either individually or in small groups, undertake a significant project, relevant to the needs of industry, government or a research area, carried out under the supervision of a staff member whose interests lie in the field of the project. Before work commences on the project, student(s) and supervisor must agree on the topic of the project and the scope of the work to be attempted. The role of the supervisor is to provide broad guidance on the methods and techniques to be used but progress depends largely on student initiative and problem-solving ability.

Course: IT20
Prerequisites: Completion of at least 72 credit points from the Computing Science major
Credit Points: 12

■ ITB447 PROJECT

Analysis, design and programming skills, and the underlying theory, are presented in various units; practice in those units naturally emphasises their particular specialisation. A project unit brings many of those skills together in a practical exercise of greater size and complexity, emphasising their complementary nature and the need for careful management. Students, either individually or in small groups, undertake a significant project, relevant to the needs of industry, government or a re-

search area, carried out under the supervision of a staff member whose interests lie in the field of the project. Before work commences on the project, student(s) and supervisor must agree on the topic of the project and the scope of the work to be attempted. The role of the supervisor is to provide broad guidance on the methods and techniques to be used but progress depends largely on student initiative and problem-solving ability.

Course: IT20

Prerequisites: Completion of at least 72 credit points from the Computing Science major

Credit Points: 12

■ ITB448 OBJECT TECHNOLOGY

Examination of methods and techniques of object-oriented design and implementation based on careful assessment of the underlying software engineering issues. The design of effective module interfaces is emphasised to achieve the full benefit of the object-oriented approach. Practical work focuses on building reusable components and constructing object-oriented systems by combining existing and custom-made components. In Semester 2, 1996, this unit may be run as a series of intensive short courses on some Saturdays during the semester. Check with the Unit Coordinator for details.

Course: IT20

Prerequisite: ITB422

Corequisite: ITB424

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: ITB236 and ITN221

■ ITB449 EXPERT SYSTEMS

Formal mathematical logic is the main theme of this unit. Some fundamental theories in the formal representation of domain knowledge are introduced. The introductory topics include: propositional and predicate logic, resolution, temporal logic, fuzzy logic and connectionist knowledge representation themes. This unit is designed to establish a strong theoretical foundation for students who will work in knowledge and engineering.

Courses: IF23, IT20

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: ITB243

■ ITB450 ADVANCED COMPUTER ARCHITECTURE

A continuation of the material introduced in the units ITB412 and ITB420. Intended to provide students with an understanding of the organisation of contemporary computer systems and the variety of different structures which may be used for specific tasks. Topics covered include the physical basis of the constraints of processor speed; high performance 'von Neumann' architectures; pipelined processors, vector processors and supercomputers; machines for protected multitasking; conceptual models for parallel computation.

Courses: IF25, IF33, IT20

Prerequisite: ITB420

Credit Points: 12

Contact Hours: 3 per week

■ ITB451 PROJECT

Enables students to undertake a two-semester project. The work in one semester can be followed up in the second, or students can extend their practical skills through the second semester project. See ITB446/7 for a general description of project units.

Course: IT20

Prerequisites: Completion of at least 60 credit points from the Computing Science major

Credit Points: 24

■ ITB452 PROJECT WORK

This unit is for students intending to proceed to the Honours course following the Bachelor of Information Technology. The project has a significant research component in addition to the practical development of a sys-

tem of greater size and complexity than previously undertaken by a student. See ITB446/7 for a general description of project units.

Course: IT20

Prerequisites: Completion of at least 72 credit points from the Computing Science major and ITB440

Credit Points: 24

■ ITB453 PROJECT

This unit allows students to undertake a large project in one semester. See ITB446 /7 for a general description of project units.

Course: IT20

Prerequisites: Completion of at least 60 credit points from the Computing Science major

Credit Points: 24

■ ITB454 SOFTWARE QUALITY ASSURANCE

Software quality assurance is concerned with ensuring that software products are of high quality, and that the software development process supports the production of high quality software. In this unit it is presented as an integral part of software development, affecting all stages of the life cycle of a software product. Practical work focuses on the techniques and tools for defining, measuring and achieving high quality software products; and for helping to increase overall productivity.

Course: IT20

Prerequisite: ITB424

Credit Points: 12

Contact Hours: 3 per week

■ ITB455 INTEGRATED SOFTWARE ENGINEERING ENVIRONMENT

Provides a thorough understanding of the rationale for the use of software tools in the software engineering process. The information stored in various software engineering constructs and the software tools used to aid their construction are examined. The interrelationship between the information generated in the software engineering process will also be examined. In the light of this examination, the relationship between the various software tools can be defined. Existing software tools and methodologies will also be examined and evaluated. Implementation issues for a fully integrated software engineering environment are examined by inspecting the implementation of one or more software engineering tools.

Course: IT20

Prerequisites: ITB222 and ITB424

Credit Points: 12

Contact Hours: 3 per week

■ ITB456 INTELLIGENT GRAPHIC USER INTERFACES

Introduction to the design and construction of GUIs. Conventional User Interfaces (CUIs) and graphical techniques are discussed as the basis for the development of GUIs. Although a computing science perspective is employed in the approach to the topics treated in this unit, influences from other disciplines are discussed.

Course: IT20

Prerequisite: ITB424

Credit Points: 12

Contact Hours: 3 per week

■ ITB457 FUNCTIONAL PROGRAMMING

Introduction to an alternative programming language and method of programming. An emphasis is placed on two important new techniques for building programs: higher order functions and lazy evaluation. Application areas include: AI, symbolic processing, rapid prototyping and reusable software design.

Course: IT20

Prerequisite: ITB421

Credit Points: 12

Contact Hours: 3 per week

■ ITB461 FOUNDATIONS OF NEUROCOMPUTING

Presents the neurocomputing paradigm and explains the biological concepts on which it is based. Focus on how neurocomputing complements the tools of the comput-

ing professional; demonstrates that neurocomputing is an inherently parallel computing method. Discusses the strengths and limitations of the most used neural network architectures and training methods; reviews neural network hardware.

Course: IT20
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITB462 COGNITIVE SYSTEMS**

Expert systems, natural language processing (with the exception of speech recognition), reasoning, high-level vision, planning and learning. Symbolic as well as neurocomputing methods, and hybrid systems, and is open to extensions.

Course: IT20 **Prerequisites:** ITB442, ITB461
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITB463 PATTERN RECOGNITION**

Focus on pattern recognition problems using the three main approaches: statistical, syntactical and neurocomputing. It demonstrates two applications of pattern recognition: speech recognition and image analysis and description.

Course: IT20 **Prerequisites:** ITB442, ITB461
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITB520 DATA COMMUNICATIONS**

An introductory treatment of the major topics and issues in data communications including the terminology and concepts of data and telecommunications networks, the services and architectures; the facilities and functions of the data and telecommunications products and services used in national and international communications networks; the main issues in the design, management, security and control of data and telecommunications networks and services; and the social, political, and economic effects of communications technologies.

Courses: BS50, IF38, IF54, IT20
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: ITN510

■ **ITB521 LABORATORY 3 (COMPUTER NETWORKS)**

Provides a practical study of the current network protocols in use today. Topics include the installation, configuration, management, performance and security of communication products and services. Students gain a theoretical understanding of the transport protocols for internetworking via repeaters, bridges, routers, and gateways; and also an understanding of the application services and protocols provided by different LANs.

Course: IT20 **Prerequisite:** ITB411
Corequisite: ITB522
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: ITN520

■ **ITB522 ADVANCED DATA COMMUNICATIONS**

Topics covered include data link protocols, transport layer services, upper layer services; data communications network design and management (techniques and case studies); performance modelling of communications networks; evaluation of data communications products and services (mostly Australian-based); data communications software design and implementation; provision of integrated communications services (voice, data, video, etc.); LAN/WAN integration; high speed networking; internetworking and network management.

Course: IT20 **Prerequisites:** ITB520, ITB410
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITB530 TRANSPORT PROTOCOLS**

Students study the principles, protocols, and architectures of internetworking. Topics include: routing strategies used by bridges and gateways; security

and management of routing data over global networks; network interface design; and error and flow control.

Course: IT20
Prerequisites: MAB177 and either ITB521 or ITN520
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITB531 APPLICATION SERVICES**

A study of the protocols provided by the process layers of the Open Systems Interconnection (OSI) Reference Model and the application services provided in the process layer, in particular message handling, directory services, file transfer access and management, network management, and distributed processing. Other topics include abstract syntax notation; profiles for government, office and manufacturing; and security issues.

Course: IT20 **Prerequisite:** ITB521
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: ITN521

■ **ITB532 LABORATORY 4 (NETWORK MANAGEMENT)**

Network management forms a vital part of the overall control and operation of computer networks and interconnection of these networks on a local, national or worldwide basis. Topics include: principles of computer network management and control; practical experience in the configuration of network management software systems and in the interpretation of management information provided by these sub-systems; factors needed in assessment of the control, management, performance, availability and security of data networks.

Courses: IT20, IT40 **Prerequisite:** ITB521
Corequisite: ITB531
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITB533 COMPARATIVE NETWORK SYSTEMS**

Various operating systems and the techniques used to perform interprocess communication. The client/server model is examined, address schemes, ports, sockets, remote procedure calls are programmed in the C language on UNIX, DOS and OS/2 systems.

Course: IT20, IT40 **Prerequisite:** ITB542
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITB534 TELECOMMUNICATION MODELLING**

The growing complexity of communication networks and services in the world today requires a detailed knowledge of how they perform and how they should be designed and managed in a cost effective way. This unit lays the foundations for a proper understanding of the factors involved. Covers the basic concepts and models used in teletraffic theory as they are applied to current telecommunication networks. Studies the mathematical techniques for achieving efficient, cost-effective communication networks.

Course: IT20 **Prerequisite:** MAB178
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITB541 TRANSMISSION TECHNIQUES**

An examination of high speed networks, satellite communications, fibre optics and wireless LANs; performance and optimisation of network links and the interconnection of telecommunications equipment based on the international standards: ISDN, BISDN, ATM.

Course: IT20 **Prerequisites:** ITB520, MAB177
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITB542 NETWORK PROGRAMMING**

Students require a detailed understanding of the processes involved in the design, development, programming and management of communications software. The interprocess communications on various systems and the necessary practical skills to utilise the concepts of net-

work programming enable them to set up network facilities, develop and modify network code, and ethics of network programming. Topics include: streams, sockets, remote procedure calls.

Courses: IT20, IT40

Prerequisite: ITB422 or ITN410

Corequisite: ITB522

Credit Points: 12 **Contact Hours:** 3 per week

■ ITB543 DATA SECURITY

Information security within an organisation deals with the managerial and technical aspects involved in protecting the information. At the completion of this unit, students are able to demonstrate knowledge of the factors which impact upon the availability, integration and confidentiality of data; make a realistic assessment of the needs for data security in an organisation; discuss the implications of security decisions on the organisation's information systems.

Courses: IT20, IT40

Prerequisite: ITB520 or ITN510

Credit Points: 12 **Contact Hours:** 3 per week

■ ITB544 PROJECT

Students, either individually or in small groups, undertake a significant project, relevant to the needs of industry, government or a research area, carried out under the supervision of a staff member whose interests lie in the field of the project. Before work commences on the project, student(s) and supervisor must agree on the topic of the project and the scope of the work to be attempted.

Course: IT20

Prerequisites: Completion of at least 72 credit points from the Data Communications major

Credit Points: 12

■ ITB545 PROJECT

Students undertake a two-semester project. The work in one semester can be followed up in the second, or students can extend their practical skills through the second semester project.

Course: IT20

Prerequisites: Completion of at least 60 credit points from the Data Communications major

Credit Points: 24

■ ITB546 SPECIAL STUDIES 1

This unit covers aspects of current scientific interest; it makes allowances for significant developments in data communications not provided for in the remainder of the course program. Details of topics are published before the start of each semester.

Course: IT20

Credit Points: 12 **Contact Hours:** 3 per week

■ ITB547 SPECIAL STUDIES 2

This unit covers aspects of current scientific interest; it makes allowances for significant developments in data communications not provided for in the remainder of the course program. Details of topics are published before the start of each semester.

Course: IT20

Credit Points: 12 **Contact Hours:** 3 per week

■ ITB548 INTRODUCTION TO CRYPTOLOGY

This unit covers classical ciphers; modern symmetric ciphers; public key ciphers; practical cryptology.

Courses: IF23, IT20, IT40, MA34, SC30, SC60

Prerequisite: MAB177 or MAB493 or MAB620

Credit Points: 12 **Contact Hours:** 3 per week

■ ITB549 ERROR CONTROL & DATA COMPRESSION

This unit covers data compression techniques; introduction to block codes; convolutional codes; cyclic codes and Reed-Solomon codes; coding techniques and appli-

cations.

Courses: IF23, IT20, IT40, MA34, SC30, SC60

Prerequisite: MAB177 or MAB493 or MAB620

Credit Points: 12 **Contact Hours:** 3 per week

■ ITB555 PROJECT

This unit allows students to undertake a large project in one semester.

Course: IT20

Prerequisites: Completion of at least 60 credit points from the Data Communications major

Credit Points: 24

■ ITB560 INTRODUCTION TO CRYPTOLOGY

This unit covers number theory; finite field theory; information theory; classical ciphers; key ciphers and cryptology.

Courses: EE44, IF23

Prerequisite: MAB493

Credit Points: 7

Contact Hours: 3 per week

■ ITB561 ERROR CONTROL & DATA COMPRESSION

This unit covers data compression technique; introduction to block codes; convolutional codes; cyclic codes and Reed-Solomon codes; coding techniques and applications.

Courses: EE44, IF23

Prerequisite: MAB493

Credit Points: 7

Contact Hours: 4 per week

■ ITB904 INDUSTRIAL TRAINING EXPERIENCE

Consists of a one-year work experience program. For more information about this program, refer to the Cooperative Education Program.

Course: IT20

Credit Points: 24

■ ITN100 RESEARCH METHODOLOGIES

Provides a basis for students to undertake a research project in the Honours and Masters programs. Examines the nature of information technology and the specific research approaches which are commonly applicable to it. Students will learn how to review literature relevant to their research and how to select the research method most appropriate to their project. Provides the foundation skills required in research: critical reviewing, analysis and writing.

Courses: IT30, IT40

Credit Points: 12 **Contact Hours:** 3 per week

■ ITN110 PROJECT (HONOURS)

Designed to enable a student to pursue, in some depth, a particular area of interest, either professional or personal, in information technology.

Courses: IT30 **Corequisite/prerequisite:** ITN100

Credit Points: 12

■ ITN120 DISSERTATION

Designed to enable students to undertake significant research work in a particular area of information technology.

Course: IT30 **Prerequisites:** ITN100 and ITN110

Credit Points: 24

■ ITN130 DISSERTATION (PART-TIME)

Designed to enable students to undertake significant research work in a particular area of information technology.

Course: IT30 **Prerequisites:** ITN100 and ITN110

Credit Points: 24

■ ITN140 PROJECT

Designed to enable a student to pursue, in some depth, a particular area of interest, either professional or personal, in information technology.

Course: IT40

Prerequisite: ITN100

Credit Points: 48

■ ITN150 PROJECT (PART-TIME)

Refer to ITN140.

Courses: IT40

Credit Points: 48

■ ITN160 RESEARCH PLAN

Preparation of a comprehensive research proposal including: a complete review of the literature, review of research methodologies appropriate to the research proposal, identification of the research methodology to be adopted, specification of the research schedule, presentation and justification of the proposal via a seminar to other students and academic staff.

Courses: IT60

Credit Points: 12

■ ITN210 FOUNDATIONS OF INFORMATION MODELLING

It is common to sharply distinguish between the specification and the implementation of organisational information systems. There are, however, many important ideas that are shared. This unit introduces notation from mathematics and logic that may be used to describe these ideas. An information system models some aspect of an organisation and contains both specific and general statements about it. The specific statements are stored in the database and the more general ones end up as program. This unit describes how such statements may be specified in the Z notation and implemented in SQL.

Courses: IT35 / IT40, IT25

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: ITB210

■ ITN211 SYSTEMS ANALYSIS AND DESIGN

For the creation of a useful and usable information system, it is essential that the feasibility of the system has been established, that the user's requirements are known, and that a suitable user interface is specified. This unit develops basic systems development skills by teaching the methodology and techniques.

Courses: IT35 / IT40, IT25

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: ITB222 and ITB321

■ ITN220 MAJOR ISSUES IN INFORMATION SYSTEMS

Explores aspects of information technology of great potential significance to information systems professionals, such as the status of information system standards, the extent of integration of computer technology and data communications technology, as well as emerging social and ethical considerations with regard to information technology.

Courses: IF64, IT40

Credit Points: 12

Contact Hours: 3 per week

■ ITN221 OBJECT-ORIENTED ANALYSIS AND DESIGN

The goal is to develop basic skills in methodologies and techniques of object-oriented analysis and design. Covers all phases of the object-oriented software development life cycle.

Courses: IT30, IT40

Prerequisite: ITB222 or equivalent

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: ITB236 and ITB448

■ ITN230 CURRENT ADVANCES IN DATABASE TECHNOLOGY

Current research activities and development in the area of the next generation database systems; a mixture of research papers and lecture notes on existing systems; practical and theoretical methodologies

Courses: IT30, IT40

Prerequisites: ITB232 or equivalent

Credit Points: 12

Contact Hours: 3 per week

■ ITN231 KNOWLEDGE-BASED SYSTEMS

This unit assumes a background in conventional systems concepts, programming and database, and an exposure to fundamental expert systems concepts. Explores four major themes in knowledge-based systems: (a) conceptual: problem selection and structure, inference and knowledge representation; (b) technical: declarative and functional programming; (c) pragmatic: improving the yield from existing information base; and (d) methodological: questions associated with the definition, design and control of knowledge-based systems.

Courses: IT30, IT40

Prerequisite: ITB243 or equivalent

Credit Points: 12

Contact Hours: 3 per week

■ ITN241 ADVANCED TOPICS IN HUMAN-COMPUTER INTERACTION

The most significant issues and activities of human computer interaction and software design; includes the perceptual basis of the presentation of visual information, the basic aspects of visual information processing and facets of representation of knowledge; the development of expert systems and how they change the nature of interaction between person and machine and review features of interactions with systems, e.g. keyboards through to advanced input modes. On completion, students should be able to apply principles from the current research in difference aspects of human computer interactions and are aware of future developments in this field.

Courses: IT30, IT40

Prerequisite: ITB224 or equivalent

Credit Points: 12

Contact Hours: 3 per week

■ ITN242 DISTRIBUTED TRANSACTION MANAGEMENT SYSTEMS

Distributed transactions management systems are the object of active research. Data sharing makes imperative the need to address the problem of making different transaction managers talk to each other in homogeneous and heterogeneous environments. Therefore the techniques which are covered in this unit have a far-reaching benefit as far as mastering the technology of the next generation database systems.

Courses: IT40 Prerequisites: ITB232 and ITN243

Credit Points: 12

Contact Hours: 3 per week

■ ITN243 ACCESS METHODS FOR INFORMATION SYSTEMS

Modern information systems are built around fast access methods and flexible structuring mechanisms. In this unit these techniques are studied using both analysis and experimentation. Trees, lists, tables, hashing and stacks are reviewed. Extensible hashing, K-d trees, quadrees, multiattribute hashing and signature files are studied.

Courses: IT30, IT40

Prerequisite: ITB246 or equivalent

Credit Points: 12

Contact Hours: 3 per week

■ ITN244 SPECIAL TOPIC 1

These units are designed to allow for the significant development of, or emphasis in, information systems not dealt with in other course units. Selected topics and study areas are offered as required and when the necessary expertise is available. See School of Information Systems announcements for details of topics being offered.

Courses: IT30, IT40

Prerequisites: See School announcements

Credit Points: 12

Contact Hours: 3 per week

■ ITN245 SPECIAL TOPIC 2

These units are designed to allow for the significant development of, or emphasis in, information systems not dealt with in other course units. Selected topics and study areas are offered as required and when the necessary

expertise is available. See School of Information Systems announcements for details of topics being offered.

Courses: IT30, IT40

Prerequisites: See School announcements

Credit Points: 12 **Contact Hours:** 3 per week

■ ITN246 MINOR PROJECT 1 (IS)

Students may pursue a specialised area or broaden their knowledge in an area of relevance to their employment. Topic is decided by agreement between the student and a staff member acting as supervisor.

Course: IT35 / IT40

Prerequisite: At least 60 credit points completed

Credit Points: 12 **Contact Hours:** 3 per week

■ ITN248 MINOR PROJECT 2 (IS)

Students may pursue a specialised area or broaden their knowledge in an area of relevance to their employment. Topic is decided by agreement between the student and a staff member acting as supervisor.

Course: IT35 / IT40

Prerequisite: At least 60 credit points completed

Credit Points: 12 **Contact Hours:** 3 per week

■ ITN250 DISTRIBUTED DATABASE SYSTEMS

Distributed DBMS architectures, data replication and fragmentation; query decomposition and optimisation; transaction management in distributed settings; distributed concurrency control; recovery and multi-databases.

Courses: IT30, IT40

Prerequisites: ITB232 and ITN243

Credit Points: 12 **Contact Hours:** 3 per week

■ ITN340 INFORMATION AGENCIES

In-depth understanding of the history and development of information agencies and their services, to enable approaches to their advancement based upon performance analysis and analysis of user needs.

Courses: IF64, IT30, IT40

Credit Points: 12 **Contact Hours:** 3 per week

■ ITN341 INFORMATION POLICY AND PLANNING

The relationship between the public and private sectors in information provision, and an examination of the information industry and corporate and government policies relating to it.

Courses: IF64, IT25, IT30, IT35 / IT40

Credit Points: 12 **Contact Hours:** 3 per week

■ ITN342 INFORMATION SCIENCE

An understanding of theories and principles that have been adopted from a variety of disciplines and which together give some pointers towards a model for information and communication theory.

Courses: IT30, IT40

Credit Points: 12 **Contact Hours:** 3 per week

■ ITN343 PRINCIPLES OF INFORMATION MANAGEMENT

The information resource; information as an organisational resource; evolution of information resources management; information management with reference to management principles; management information systems; applications of environmental scanning; information technology management; information flows and information mapping; information resource evaluation; information management and business strategy; information added value; information and competitive advantage; social intelligence.

Course: IT35 / IT40, IT25

Credit Points: 12 **Contact Hours:** 3 per week

■ ITN344 INFORMATION PROCESSING APPLICATIONS

A series of learning modules relating to different database, spreadsheet, information retrieval, desktop pub-

lishing, network interface and other information management packages is provided. Each student undertakes three of these modules and is required to report on each module, making creative use of word processing, electronic mail, project management and presentation software.

Course: IT40

Credit Points: 12 **Contact Hours:** 3 per week

■ ITN345 INFORMATION SYSTEMS AUDIT

A general approach to IS auditing; the management controls framework; the application controls framework; security administration; audit software; the IS audit function; controls over asset safeguarding, data integrity, system effectiveness and efficiency.

Course: IT40

Prerequisite: Completion of Information Management module 1

Credit Points: 12 **Contact Hours:** 3 per week

■ ITN346 SPECIAL TOPIC – INFORMATION MANAGEMENT

Topic be developed on an individual basis.

Course: IT40

Prerequisite: Dependent on individual topic

Credit Points: 12

■ ITN347 INFORMATION MANAGEMENT PROJECT 1

Students may pursue a specialised area or broaden their knowledge in areas of relevance to their employment. Topic is decided by agreement between the student and a staff member acting as supervisor.

Course: IT40

Prerequisite: Dependent on individual topic

Credit Points: 12

■ ITN348 INFORMATION MANAGEMENT PROJECT 2

Students may pursue a specialised area or broaden their knowledge in areas of relevance to their employment. Topic is decided by agreement between the student and a staff member acting as supervisor.

Course: IT40

Prerequisite: Dependent on individual topic

Credit Points: 12

■ ITN350 INFORMATION CONTEXTS

Survey research methods; proposal writing; ethics in the provision of information resources and information services; marketing of information services; user education; referral services; an overview of programs providing information resources and services for persons with special needs; developing reliable and valid measuring instruments for program evaluation.

Course: IT40

Prerequisites: HRN104, ITP329

Credit Points: 12 **Contact Hours:** 3 per week

■ ITN351 INFORMATION SOURCES 2

Role of the search intermediary and reference librarian; implications of a National Information Policy; news sources; other information sources related to R&D, long-range planning, marketing; advanced online, network and CDROM information retrieval; expert systems as tools in reference work.

Course: IT40

Prerequisite: ITP328

Credit Points: 12 **Contact Hours:** 3 per week

■ ITN352 INFORMATION ORGANISATION 2

Rules for description of material in library collections; application of computer-based cataloguing rules to all types of materials; comparison of description of materials in OPACs, MARC format, shared cataloguing and cataloguing networks; comparison of general classification systems and the use of main systems such as DDC and LC in libraries; alternative classification systems

such as BSO; special classification systems for specific subject areas; development and use of structured interfaces to Internet resources.

Course: IT40

Prerequisite: ITP327

Credit Points: 12

Contact Hours: 3 per week

■ ITN353 RECORDS MANAGEMENT

History and role of records management; file storage and equipment; records survey; classification and indexing; office functions and controls and computer applications; disaster recovery; disposition; ergonomics; micrographics; automation; forms design; office machines and equipment; RMAA.

Course: IT40

Prerequisites: ITN343, ITP330

Credit Points: 12

Contact Hours: 3 per week

■ ITN354 ORGANISING MULTICULTURAL INFORMATION RESOURCES & SERVICES

Initial and ongoing information gathering and decision making required; market research for a multicultural service; coping with the transient nature of many ethnic groups in a given location; the particular problems of ageing ethnic communities; second and later generation Australian-born ethnic community members and their needs; the complexities of total illiteracy and monolanguage literacy; handling intra and inter ethnic group sensitivities and hostilities; non-English language resource providers; selection methodologies appropriate where in-library language expertise is non-existent; providing effective resources catalogues; physical organisation of multiple language resource collections; linkages to the English language resources collection; space provision and signage for a multicultural service; marketing and public relations: targets, strategies and tactics.

Course: IT40

Prerequisites: ITP329, HRN104, ITP328

Credit Points: 12

Contact Hours: 3 per week

■ ITN355 INFORMATION RESOURCES FOR BUSINESS & INDUSTRY

Commercial information services: historical perspective on the types of services offered in academic, state, public and special libraries; consideration of the ongoing debate about the opposing philosophies of freedom of access to information versus a feebased information service; the information requirements of the business and industrial community and the implications for library services; investigation of what types of services are required and can be targetted to help further develop existing library resources (can our commercial information service run at a profit?); issues involved in selling information, including legal liabilities and ethical concerns; how to establish a feebased service, including staff selection; staff skills, client relationships, confidentiality, management and location of the service; implications for the future; costs and the relationship of costs to the rapid expansion of the Internet.

Course: IT40

Prerequisites: ITP328, HRN104, ITP329

Credit Points: 12

Contact Hours: 3 per week

■ ITN356 RESOURCES & SERVICES FOR YOUNG PEOPLE

Goals and objectives of library services for young people; community outreach and activity programs for children; activity programs and services for young people; psychology of the child: reading, development and tasks; bibliotherapy; booktalks; storytelling; selection of fiction and nonfiction for young people; library services to schools, curriculum support materials; user surveys; history of children's literature; censorship; special collections; book awards; picture books and books for the young child; children's book illustration/illustrators;

Australian children's literature; the Aborigine in Australian children's literature; genres in children's literature: science fiction, fantasy, etc.; nonsexist children's literature.

Course: IT40

Prerequisite: ITP329

Credit Points: 12

Contact Hours: 3 per week

■ ITN357 SPECIAL TOPIC – INFORMATION STUDIES

Topic developed on an individual basis.

Course: IT40

Prerequisites: Dependent on individual topic

Credit Points: 12

■ ITN358 MANAGEMENT OF INFORMATION PROGRAMS

The specific role and functions of the manager of an information agency; social, ethical and legal responsibilities of information agencies; the managerial challenges associated with modern dependence on computer and other technologies in the day-to-day operations of information agencies; the need to prioritise an information agency's resource and service commitments; report writing; aids to decision-making and decision implementation; skills and techniques for converting 'good ideas' into credible and persuasive plans; budgeting, cash flow and marketing in both profit and nonprofit information agencies.

Course: IT40

Prerequisite: HRN104

Credit Points: 12

Contact Hours: 3 per week

■ ITN359 PRESERVATION MANAGEMENT OF RESOURCE MATERIALS

The principles, strategies and practices of preservation of materials; evaluation of the various preservation techniques appropriate to the major storage media (e.g. paper, film, electronic, etc.); the importance of preservation planning and security as a part of all routines and the implications of consequent losses to organisations and society should information agencies fail to formulate a preservation plan; risk analysis, prioritising, costing and budgeting.

Course: IT40

Prerequisites: HRN104, ITN343

Credit Points: 12

Contact Hours: 3 per week

■ ITN360 EVALUATION OF INFORMATION PROGRAMS

Project goal setting; project design and planning; evaluation/measurement tools, including locating appropriate tools and establishing their reliability and validity; implementing the project plan; managing the project within time and budget constraints; maintaining good relations with information service personnel; data analysis; report and recommendations.

Course: IT40

Prerequisites: ITP329, ITP328, ITP330

Credit Points: 12

Contact Hours: 3 per week

■ ITN410 SOFTWARE PRINCIPLES

Use of efficient data structures; languages illustrating the variety of features found in computer programming languages; structured program design techniques; advanced algorithms and methods of providing program correctness.

Course: IT40

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: ITB422

■ ITN411 SYSTEMS ARCHITECTURE & OPERATING SYSTEMS

Computer organisation; the nature and roles of system software and the nature of microcomputers and computer graphics; computer systems architecture; micro-operations; instruction formats; microprocessor types; machine language; system software including operating systems, assemblers, compilers, loaders.

Course: IT40 **Corequisite:** ITN410
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: ITB412

■ **ITN420 COMPARATIVE PROGRAMMING LANGUAGES**

Language is the fundamental conceptual tool and means of expression within information technology so its principles need to be understood and the similarities and differences between different languages appreciated. This unit provides an understanding of the languages currently used and, importantly, in what directions they can be expected to develop. Language is also the major technical support for software engineering principles so can be seen as a large part of the solution to current and future software engineering problems.

Courses: IT30, IT40
Prerequisites: Knowledge of ADTs
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITN421 SOFTWARE SPECIFICATION**

The use of formal methods is viewed as an integral part of the software engineering process. The unit includes formal specifications and uses the laws of refinement to derive Modula-2 code. Later temporal logic to deal with real-time issues is introduced.

Courses: IT30, IT40
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITN430 ADVANCED OPERATING SYSTEMS**

This unit has two themes: the nature, design and implementation of real-time systems on the one hand, and the nature of object-oriented programming environments and operating systems on the other. Students are expected to be familiar with systems programming and object-oriented concepts.

Courses: IT30, IT40
Prerequisites: ITN410 and ITN411 (IT40 only)
Corequisites: ITB430
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITN431 DISTRIBUTED SYSTEMS**

The rationale for distributed computer systems, their domain of application and the principles of distributed control underlying their construction. A number of representative systems are examined.

Courses: IT30, IT40 **Prerequisite:** ITB430
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITN440 ADVANCED GRAPHICS**

Advanced level extension of the material in the undergraduate curriculum; the use of facilities provided by existing graphics systems.

Courses: IT30, IT40 **Prerequisite:** ITB441
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITN441 ARTIFICIAL INTELLIGENCE**

Artificial intelligence in the computing industry; aspects of artificial intelligence which have given rise to commercial products; background research efforts which promise to have a major impact on the use of computers in the near future.

Courses: IT30, IT40 **Prerequisite:** ITB442
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITN442 COMPILER CONSTRUCTION**

The organisation and structure of language translator and compilers. Some emphasis is placed on those parts of these software tools which are amenable to formal analysis. The material extends undergraduate studies in algorithm design and in the semantics of formal languages. Special attention is paid to techniques which are applicable in the implementation of special purpose languages such as database query languages and production systems.

Courses: IT30, IT40 **Prerequisite:** ITB440
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITN443 NEUROCOMPUTING**

An introduction to the principles upon which current artificial neural network computing is based, giving examples of current applications, and exploring the potential future development of the technology.

Courses: IT30, IT40
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITN444 PARALLEL PROCESSING**

The modelling of parallel systems and the design methodologies used in their construction; applicable software systems and methodologies; the formal analysis of concurrent systems is based on the theory of communicating sequential processes.

Courses: IT30, IT40
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITN445 PATTERN RECOGNITION**

Introduction of new methods for producing more powerful software for tasks traditionally considered as requiring intelligence. Hands-on experience is provided by computer simulations exercises and assignments using MATLAB.

Courses: IT30, IT40
Prerequisites: ITB442 and ITB461 or equivalent
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITN446 MINOR PROJECT 1 (CS)**

Students may pursue a specialised area or broaden their knowledge in areas of relevance to their employment. Topic is decided by agreement between the student and a staff member acting as supervisor.

Course: IT40
Prerequisite: At least 72 credit points completed
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITN447 SPECIAL STUDIES**

Aspects of current scientific research interest; it makes allowances for significant developments in computing science not provided for in the remainder of the course program. See noticeboard for further information.

Courses: IT30, IT40
Prerequisites: Topic dependent
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITN449 MINOR PROJECT 2 (CS)**

Students may pursue a specialised area or broaden their knowledge in an area of relevance to their employment. Topic is decided by agreement between the student and a staff member acting as supervisor.

Course: IT35 / IT40 **Prerequisite:** At least 60 credit points completed
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITN510 DATA NETWORKS**

Basic data communications and topics of fundamental importance concerning the technology and architecture of data networks at a postgraduate level. It emphasises communications software and hardware, telecommunication services, local area networks, wide area networks, interconnectivity and network management.

Courses: IT40
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: ITB510

■ **ITN520 INTERNETWORKING**

Students entering the field of computer networks are expected to possess practical skills in various aspects of the installation and management of communications systems, particularly local area networks.

Course: IT40 **Prerequisite:** ITN510
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: ITB521

■ **ITN521 NETWORK APPLICATIONS**

Students will study the distributed application services

offered by open networking technologies. The international standards pertaining to these distributed application services will also be studied (mainly those using the OSI and TCP/IP communications technologies). Students will also gain insight into future industry trends in the area of open systems.

Course: IT40 **Prerequisite:** ITN510
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: ITB531

■ ITN526 MINOR PROJECT 1 (DC)

Students may pursue a specialised area or broaden their knowledge in an area of relevance to their employment. Topic is decided by agreement between the student and a staff member acting as supervisor.

Course: IT35 / IT40 **Prerequisite:** At least 60 credit points completed
Credit Points: 12 **Contact Hours:** 3 per week

■ ITN528 MINOR PROJECT 2 (DC)

Students may pursue a specialised area or broaden their knowledge in an area of relevance to their employment. Topic is decided by agreement between the student and a staff member acting as supervisor.

Course: IT35 / IT40 **Prerequisite:** At least 60 credit points completed
Credit Points: 12 **Contact Hours:** 3 per week

■ ITN530 CORPORATE TELECOMMUNICATIONS

The issues of design, control, security and management of enterprise-wide networks. The corporate network encompasses integrating a company's telecommunications systems, including local area networks, metropolitan area networks, wide area networks (national and international), voice networks, and other special services.

Courses: IT30, IT40 **Prerequisite:** ITN521
Credit Points: 12 **Contact Hours:** 3 per week

■ ITN531 NETWORK SECURITY

Ensures that students recognise the requirement to design, implement and manage facilities in a manner consistent with an overall organisational security policy. Development of a security plan; risk analysis; access control; cryptography; network security and encryption; key management; database security; secure operating systems and access control. On completion, students should be able to incorporate security and management controls into information systems in accordance with a formal risk analysis and assessment for the system.

Courses: IT30, IT40 **Prerequisites:** ITB543 or ITB548 and ITN520 or equivalent
Credit Points: 12 **Contact Hours:** 3 per week

■ ITN540 ADVANCED NETWORK TECHNOLOGIES

Details the latest network technologies for moving information across the room or across the world. Investigates the network protocols used in the transport of information using this new hardware.

Courses: IT30, IT40 **Prerequisites:** ITB520
Credit Points: 12 **Contact Hours:** 3 per week

■ ITN553 OS SECURITY AND MANAGEMENT

Computer professionals need to be able to identify, assess, and advise on the security features (in particular the enforcement techniques used) in computer systems.

Courses: IT30, IT40 **Corequisite:** ITN531
Credit Points: 12

■ ITN554 SPECIAL TOPIC

An advanced topic in data networks is studied in detail. The topic concerned will depend on the interests of the Faculty member or visitor responsible for the unit in any semester in which the unit is offered.

Courses: IT30, IT40

Prerequisites: Approval of Head of School of Data Communications

Credit Points: 12 **Contact Hours:** 3 per week

■ ITN555 SPECIAL TOPIC

Refer to ITN554.

Course: IT30 **Credit Points:** 12

■ ITN556 ADVANCED TOPICS IN CRYPTOLOGY

Design and cryptanalysis of ciphers; indepth study of methods for forming secure ciphers and attacking various ciphers; secret sharing schemes; crypto-protocols, including zero knowledge systems; current topics in cryptology.

Courses: IT30, IT40 **Prerequisite:** ITB548
Credit Points: 12 **Contact Hours:** 3 per week

■ ITP312 ORGANISATION OF KNOWLEDGE

The organisation of knowledge in libraries and information agencies. Emphasis is placed on the description, classification and subject analysis of information in print media using AACR2 (1988 revision), DDC and LCSH. Other related topics are mentioned briefly, e.g. LCC, MARC, ABN and other efforts.

Courses: IS25, IT20 **Prerequisite:** ITB548
Credit Points: 12 **Contact Hours:** 3 per week

■ ITP313 INFORMATION SOURCES & SERVICES

Interpersonal communication, the reference interview and search strategies, and general and Australian reference tools; national information policy, reference theory and service, communication and the reference interview, search strategies, lead-in tools, general reference tools, government documents, resources in the humanities, social sciences, science and technology, user pays, document delivery, microcomputers.

Courses: IS25, IT20 **Prerequisite:** ITB548
Credit Points: 12 **Contact Hours:** 3 per week

■ ITP316 FIELD EXPERIENCE

Designed to give students an opportunity to participate in the day-to-day work of a library at a beginning professional level. Students are required to undertake work at a level appropriate to beginning professionals in two approved libraries for a total period of 30 working days, gaining substantial experience in at least two different areas of library work under the supervision of qualified librarians.

Courses: IS25, IT20 **Prerequisites:** Completion of 50 per cent of other units
Credit Points: 4

■ ITP317 LIBRARY SERVICES TO YOUNG PEOPLE

The most important aspects of library services to children and young adults; the evolution of literature with emphasis on the effects of social, political and religious movements on its purposes, form and content; the development of library services in both schools and public libraries; the importance of literary awards; the criteria for selection of resources; the planning and carrying out of programs to promote reading, including effective storytelling.

Course: IS25 **Prerequisites:** ITP311, ITP313
Credit Points: 12 **Contact Hours:** 3 per week

■ ITP318 ADVANCED ORGANISATION OF KNOWLEDGE

The organisation of knowledge in libraries and information agencies. Topics include description of selected non-print media, enumerative and faceted classifications, special classifications, problems with alphabetical unit indexes and automated indexing.

Course: IS25 **Prerequisite:** ITP312
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITP319 GOVERNMENT DOCUMENTS**

The production, acquisition and organisation of government documents and issues related to their use. Topics include why governments publish, the range of units, the value of government information, bibliographic control, freedom of information commercialisation/privatisation of government information, and organisation of government document collections. Australian, United States, United Kingdom and international government documents are studied.

Course: IS25 **Prerequisite:** ITP313
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITP320 SPECIAL TOPIC – LIBRARY SCIENCE**

Designed to allow for significant development of, or emphasis in, library science not dealt with in other units. Topics and study areas are offered as required and when the necessary expertise is available.

Course: IS25
Prerequisites: See School announcements
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITP321 SPECIAL TOPIC – LIBRARY SCIENCE**

Allows for the significant development of or emphasis in library science not already dealt with. Selected topics and study areas are offered as required and when the necessary expertise is available.

Course: IS25
Prerequisites: See School announcements
Credit Points: 8 **Contact Hours:** 2 per week

■ **ITP322 INDIVIDUAL STUDY**

Students can pursue in depth a personal interest in library science not covered by the Graduate Diploma course core or other elective units. On completion of this unit, students should be able to demonstrate a detailed knowledge of the area chosen.

Course: IS25
Prerequisites: To be determined by the nature of the study
Credit Points: 8 **Contact Hours:** 2 per week

■ **ITP323 INTRODUCTION TO RECORDS MANAGEMENT**

Records management theory, techniques and trends. Topics include the history and role of records management and the creation, control, organisation, maintenance, disposition and evaluation of records.

Course: IS25
Credit Points: 8 **Contact Hours:** 2 per week

■ **ITP324 LIBRARY PROGRAMS & SERVICES**

An introduction to the evaluation of users' informational needs and the development of library programs and services to meet the needs of special groups in the community, e.g. young people, elderly people, disabled people, ethnic minorities, business people, etc.

Course: IS25 **Prerequisite:** ITP313
Credit Points: 8 **Contact Hours:** 2 per week

■ **ITP325 PRESERVATION MANAGEMENT OF MATERIALS**

Principles, strategies and practices of preservation of materials; various preservation techniques appropriate to the major storage media; the importance of preservation planning and security as a part of all routines; the implications of consequent losses to organisations and society should information agencies not formulate a preservation plan.

Course: IS25
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITP326 INDIVIDUAL STUDY**

Students can pursue in depth a personal interest in library science not covered by the Graduate Diploma course core or other elective units. On completion of this unit, students should be able to demonstrate a detailed knowledge of the area chosen.

Course: IS25
Prerequisites: To be determined by the nature of the study

Credit Points: 12 **Contact Hours:** 3 per week

■ **ITP327 INFORMATION ORGANISATION 1**

Description of recorded knowledge in its various forms, rules and standards for description and organisation in different environments; database creation, control and report formatting; comparison of bibliographic and nonbibliographic report formats; citation and citation software; content analysis and vocabulary control; indexing and indexing display formats; classification and introduction to general classification systems, and comparison with subject-specific systems.

Course: IT25
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITP328 INFORMATION SOURCES 1**

Different media and the publishing process; primary, secondary and tertiary published information resources; critical success factors and environmental scanning; what environmental scanning is and how it works; characteristics of resources in the humanities, social sciences, sciences and technology; 'lead in' tools, general reference tools, abstracting and indexing services both hard copy and machine readable; conducting a client interview; selecting an online or hardcopy database, selecting a database provider, developing a search strategy, designing a search query; the proliferation of Internet resources; identification and location of specialist publications.

Course: IT25
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITP329 INFORMATION RESOURCES PROVISION**

The concept of information and the information life cycle; intellectual property and intellectual freedom; assessing community information needs and wants; evaluation and maintenance of resource collections; cooperative collection development and resource sharing; the multifaceted role of consortia; writing and testing a collection policy document; print, nonprint and multimedia publishers/producers; legal and ethical issues in information resource provision; locating alternative information resource providers; selection aids and tools for acquiring information resource items; techniques for assessing community information needs.

Course: IT25
Credit Points: 12 **Contact Hours:** 3 per week

■ **ITP330 PROFESSIONAL PRACTICE**

Historical perspective of the role of libraries and information agencies; alternative approaches and technologies for information provision and dissemination; processes and techniques of communication; social and legal framework affecting information provision; the role of librarians and other information professionals; field experience involving day to day employment in a library or other information agency.

Course: IT25
Prerequisite: Successful completion of the four units from the first module of the course
Credit Points: 12 **Contact Hours:** 3 per week

■ **JSB011 SOCIAL ISSUES FOR JUSTICE PROFESSIONALS 1**

This unit introduces students to the concepts of race,

ethnicity, class and gender in order to provide a framework for understanding the way in which inequality is produced and reproduced. This unit will argue that such knowledge informs our interpretation and understanding of justice and injustice in Australian society.
Courses: JS31, JS33, LW41
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB101

■ **JSB012 COMMUNICATION FOR JUSTICE PROFESSIONALS**

Personnel in human service agencies such as law enforcement and justice administration are highly dependent upon communication skills. In particular, good written communication is essential. It is also essential for academic success. This unit aims to lay the foundation for effective writing skills which will form the basis for academic success and professional competence. Students will be assisted to think, plan and write effectively and will be encouraged to assess and improve the technical aspects of their writing and to explore and practise a variety of writing styles.
Courses: JS31, JS33, LW41
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB104

■ **JSB013 LAW AND GOVERNMENT 1**

This unit aims to introduce students to the institutions of government, bureaucracy and the law. With legal processes under increasing scrutiny and social change occurring at a far greater pace than in the past it is no longer sufficient or possible to 'know what the law is'. Instead, students will acquire an understanding of the relationship between law and society as well as legal problem-solving skills to equip them to adapt as change occurs.
Courses: JS31, JS33
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB103

■ **JSB014 INTRODUCTION TO JUSTICE STUDIES**

Justice Studies adopts a multidisciplinary approach to knowledge. Several disciplines such as sociology, psychology, criminology, philosophy and law form the basis of the Justice Studies program. This subject will focus on these different knowledges which various professions use to inform their research and practice.
Courses: JS31, JS33, LW41
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB108

■ **JSB015 SOCIAL ISSUES FOR JUSTICE PROFESSIONALS 2**

This unit uses the knowledge and understanding of inequality and injustice gained in JSB011 to introduce students to the concepts of rights, equality, justice and citizenship. These concepts form the basis for a more detailed explanation of social justice and its relationship to criminal justice.
Course: JS31, JS33, LW41
Prerequisites: JSB011, JSB012
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB202

■ **JSB016 INTERPERSONAL SKILLS FOR JUSTICE PROFESSIONALS**

Skills development and their application in relation to the self and in interaction with others. Both functional and dysfunctional styles are examined.
Courses: JS31, JS33, LW41 **Prerequisite:** JSB012
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB105

■ **JSB017 LAW AND GOVERNMENT 2**

This unit complements Law and Government 1. It critically examines the role of the courts, the resolution of

disputes and the criminal justice system.

Courses: JS31, JS33 **Prerequisites:** JSB012, JSB013
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB216

■ **JSB018 CRIMINOLOGY 1**

This unit traces the development of theories of criminal behaviour and criminal law from the Enlightenment to the present day. Examination will also be made of the impact criminological theory has upon institutional practices within the criminal justice system.
Courses: JS31, JS33, LW41 **Prerequisite:** JSB012
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB107

■ **JSB021 CRIMINOLOGY 2**

Examination of the theories of punishment. Having defined punishment and the nature and limits of the criminal law, students assess the traditional justifications for punishment: retribution and just deserts, deterrence, rehabilitation and elimination and incapacitation. Justifications for severity of punishment, the control of judicial discretion and the political significance of punishment are examined. Options for reform are also canvassed.
Courses: JS31, JS33, LW41 **Prerequisite:** JSB018
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB304

■ **JSB022 PRINCIPLES OF CRIMINAL LAW 1**

This subject exposes students to fundamental principles of criminal law as well as the social and political forces that shape those laws. It focuses on crimes of violence including sexual assault, child abuse, elder abuse and domestic violence. It also looks at criminal defences and property offences.
Courses: JS31, JS33, LW41 **Prerequisite:** JSB017
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB201

■ **JSB023 HUMAN DYNAMICS AND THE CRIMINAL JUSTICE PROCESS 1**

The human factors involving personality, inheritance and moral development, and crime are explored in the context of policing, the courts and the correctional system. Eyewitness testimony, offender rehabilitation and societal reactions are examined.
Courses: JS31, JS33, LW41 **Prerequisite:** JSB016
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB203

■ **JSB024 PRINCIPLES OF CRIMINAL LAW 2**

This subject exposes students to fundamental principles of criminal law as well as the social and political forces that shape those laws in the areas of crimes of morality; drug, traffic and public order offences; war crimes and hate crimes; state corruption and whistleblowers; white collar crime, proceeds of crime and victims of crime. It also looks at the due process aspects of criminal procedure.
Courses: JS31, JS33, LW41 **Prerequisite:** JSB022
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB204

■ **JSB031 INVESTIGATION AND EVIDENCE**

Professionals involved in the fields of law enforcement and justice administration are frequently required to exercise investigative skills. This unit provides students with a clear understanding of the law relating to the gathering of evidence, interrogation and admissibility of evidence in court. Study includes an examination of the general principles of judicial evidence, witnesses, rules of evidence, admissions and confessions. Issues of evidence of current importance (e.g. issues arising out of inquiries such as 'Operation Trident', new forms of evi-

dence such as DNA, phone taps and the erosion of the right to silence) are also to be explored.

Courses: JS31, JS33, LW41 **Prerequisites:** JSB024
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB301

■ JSB032 ALTERNATIVE JUSTICE PROCESSES

The state approach to conflict and dispute resolution is explored, highlighting the differences between the institutionalised legal system and alternatives promised by other schemes. This subject takes both a theoretical and a practical focus, with skills training comprising an important part of tutorials. A critical examination of the policies, philosophy and the practice of dispute resolution is undertaken in order to best appraise justice professionals of their personal and professional options when faced by conflict.

Courses: JS31, JS33, LW41 **Prerequisites:** JSB017
Credit Points: 12 **Contact Hours:** 3 per week

■ JSB033 HUMAN DYNAMICS AND THE CRIMINAL JUSTICE PROCESS 2

Acquaints students with the nature of the unique stresses and their effects upon workers within the justice professions. Theories of counselling are examined and practical counselling skills developed.

Courses: JS31, JS33, LW41 **Prerequisite:** JSB023
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB303

■ JSB034 JUSTICE AND ACCOUNTABILITY

Perspectives on accountability: personal, social and organisational; issues of justice in accountable practice: legal issues and professional issues, and a work component on accountable practices.

Courses: JS31, JS33, LW41
Credit Points: 12 **Contact Hours:** 3 per week

■ JSB051 INTRODUCTION TO CRIMINAL LAW AND EVIDENCE

The principles, rules and concepts of criminal law and evidence; the understanding and applications of such principles, concepts and rules as they relate to the operation of the criminal justice system.

Course: JS31, JS33 **Prerequisite:** JSB013, JSB014
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB109

■ JSB052 POLICE PROCEDURE AND PRACTICE

The role and function of policing; enforcement practices: non-arrest, arrest situations; supporting documentation; evidentiary sources and gathering methodology; crime trends and their impact on policing practices.

Courses: JS31, JS33, LW41 **Prerequisite:** JSB051
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB210

■ JSB053 ORGANISED CRIME

The apparent growth of organised crime, both nationally and internationally, in recent years has resulted in a deepening commitment on the part of the law enforcement agencies to its suppression. Although not confined to the association with illicit drugs, the so-called drug trade is a major enterprise behind the proliferation of organised crime. Another consequence of organised crime is the development of corruption through the diverse levels of society. Students therefore gain an understanding of the historical development, social perceptions and consequences and the perceived extent of organised crime. Students also consider the strategies employed to combat organised crime including the extent of investigation and/or Commissions of Inquiry documented to date.

Courses: JS31, JS33, LW41

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB310

■ JSB054 ISSUES IN POLICING

This unit endeavours to expose students to the multifarious nature of policing and the impact that societal developments have on policing and vice versa.

Courses: JS31, JS33, LW41
Credit Points: 12 **Contact Hours:** 3 per week

■ JSB055 INTERPROFESSIONAL CO-OPERATION

The role and function of policing in conjunction with other agencies, particularly emergency service agencies; the cooperation necessary and the awareness of reciprocal roles and functions in given situations.

Courses: JS31, JS33
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB212

■ JSB056 INTRODUCTION TO DISASTER MANAGEMENT

This unit provides students with an overview of disasters and the focus on the phases of disaster management: prevention, preparedness, management and recovery.

Courses: JS31, JS33
Credit Points: 12 **Contact Hours:** 3 per week

■ JSB057 HAZARD ANALYSIS AND RISK ASSESSMENT FOR DISASTER MANAGEMENT

This unit requires students to analyse and rate potential disaster situations as part of the overall planning process. The students will conduct a hazard analysis concerning potential disasters and provide for this arrangement in their disaster plan.

Courses: JS31, JS33 **Prerequisite:** JSB056
Credit Points: 12 **Contact Hours:** 3 per week

■ JSB058 COUNTER DISASTER PLANNING

The students will be required to develop/review a counter disaster plan after being exposed to the cycle of disaster planning.

Courses: JS31, JS33 **Prerequisite:** JSB056
Credit Points: 12 **Contact Hours:** 3 per week

■ JSB059 DISASTER RESPONSE MANAGEMENT

During this unit students will develop an awareness of the problems that exist even after the disaster situation has passed and the trauma suffered by the community as a collection and by the individual.

Courses: JS31, JS33 **Prerequisite:** JSB056
Credit Points: 12 **Contact Hours:** 3 per week

■ JSB061 PROCESS THEORY AND APPLICATION

Detailed study and application of the intelligence process (cycle); study of intelligence support to operational staff and organisations; strategic, operational and tactical concepts of intelligence and security; threat and risk assessment relative to protective security – personnel, materials and infrastructure; industrial and commercial espionage and sabotage.

Courses: JS31, JS33, LW41 **Prerequisite:** JSB014
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB211

■ JSB062 PROTECTIVE SECURITY – THEORY AND APPLICATION

Deals with protective security in its broadest sense; it examines the threat to security in the public, private and national arenas. The nature of espionage, subversion, sabotage, theft and hostage situations are also examined. The basic areas of protective security are personnel, material, physical and information security. Students also

conduct risk/threat assessments and cover other areas such as inspections, audits, surveys and reviews; policy, procedures and controls; management aspects; legislation; case studies and models of security.
Courses: JS31, JS33, LW41 **Prerequisite:** JSB061
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB213

■ **JSB063 INTELLIGENCE RESEARCH – ISSUES, PROCEDURES AND PRACTICE**

Addresses major intelligence issues, intelligence and related security procedures and professional practices. The concept of intelligence in this unit is 'that which confers an advantage' in any professional context. Students apply process methodology: in examining specific societal issues; in recognising different intelligence 'research' procedures for specific issues; and in practical analysis of selected issues such as terrorism, illegal drugs, fauna smuggling, organised crime (operating in, or having the potential to operate in, Australia), corporate crime, community crime, environmental matters, illegal immigration, national defence and foreign intelligence activities.

Courses: JS31, JS33, LW41 **Prerequisite:** JSB061
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB313

■ **JSB064 PROTECTIVE SECURITY – ISSUES AND PRACTICE**

Personnel, material, physical and information security are the main areas with protective security. This unit covers the methods and techniques for the collection of information and its management and analysis. Students conduct formal audits and complete written reports on their findings. Planning and controlling the flow of information; anacapa, scan and other analysis tools are studied.

Courses: JS31, JS33, LW41
Prerequisites: JSB061, JSB062
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB311

■ **JSB065 INTELLIGENCE AND NATIONAL SECURITY**

Examination of the concept of national security and development of a basic understanding of the control, functions, roles and responsibilities at the national level in the Australian context. Comparative studies of overseas intelligence and security systems ensure students develop a broader understanding of national security through appreciation of different concepts and contexts. Case studies illustrate: abuses of intelligence and security (e.g. political and ideological); intelligence failures; intelligence successes and changes in concepts of national security over the past 50 years. Issues which constitute actual and potential threats to national security in Australia are explored.

Courses: JS31, JS33
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB221

■ **JSB066 MANAGEMENT OF PROTECTIVE SECURITY**

The security function and its performance are considered under a series of topics: formulating a security policy and monitoring its performance; responsibility for security; employment of security staff; training security staff; security of records and reports; conducting surveys and report writing; security of buildings and sites; conference security; security and control of road transport; fire and accident prevention; aids to security; professional bodies; and law and practice.

Courses: JS31, JS33
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB222

■ **JSB067 INTELLIGENCE, ORGANISATIONS, PERSONNEL AND OPERATIONS**

Examination of the various types of intelligence and protective security organisations from the perspective of the 'essentials of an intelligence system'. Using defined characteristics of the intelligence professional and the principles of intelligence and security, students evaluate the selection procedures, selection criteria and management for research analysts, administrative staff, counterintelligence and protective security personnel, technical specialists and generalists for a range of organisational types. Students design systems, establish and resource them, and identify direction required to achieve defined organisational goals and establish and critically examine assessment criteria for efficiency and effectiveness of the various systems. The concept of an intelligence (and security) operation is examined together with all factors which influence decision-making relative to targets and resources. Ethics, the law and political considerations feature in operational studies.

Courses: JS31, JS33
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB223

■ **JSB068 PROTECTIVE SECURITY IN AUTOMATED SYSTEMS**

Principles of protective security are applied to automated systems. Intelligence production is examined through existing data collection, collation and analysis programs (including computerised investigation aids). The unit addresses: the threat to automated systems (e.g. espionage, sabotage, coercion, fraud); available security products; studies of hardware and software security; access controls, networks, data transmission security, and maintenance controls; planning of secure sites; case histories and methods by which security can be breached; and future directions in law enforcement technology and computers.

Courses: JS31, JS33
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB230

■ **JSB071 CORRECTIONS AND THE COMMUNITY 1**

The forerunners of the custodial and community correctional systems and their influence are explored in respect to current correctional processes and philosophies. Contemporary conflicting models and their implications are examined.

Courses: JS31, JS33, LW31 **Prerequisite:** JSB014
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB217

■ **JSB072 CORRECTIONS AND THE COMMUNITY 2**

Contemporary formal and informal custodial and community corrections processes and procedures are presented. The interaction of correctional policies and community programs is discussed.

Courses: JS31, JS33, LW41
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB218

■ **JSB073 CORRECTIONS AND THE COMMUNITY 3**

The correctional setting and its impact on staff and inmates is examined. Special groups – their unique needs and treatment strategies – are discussed in the context of policies and procedures.

Courses: JS31, JS33, LW41
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: JSB317

■ **JSB074 CORRECTIONS AND THE COMMUNITY 4**

Evaluation of alternative models of corrections is un-

dertaken, and controversial issues explored. Fiscal constraints and administrative dilemmas according to international trends are examined and determination made as to the present and future effectiveness of the correctional system.

Courses: JS31, JS33, LW41

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: JSB318

■ JSB075 PENOLOGY 1

A critical exposé of penal practices, principles and controversies operating in both closed and open penal settings. Examination of the successes and failures of past and present penal systems is invited.

Courses: JS31, JS33

Credit Points: 12 **Contact Hours:** 3 per week

■ JSB076 PENOLOGY 2

The impact of socialisation factors within penological systems is explored and applied to special groups within a variety of settings.

Courses: JS31, JS33

Credit Points: 12 **Contact Hours:** 3 per week

Prerequisites: JSB075

■ JSB081 LAW AND PUBLIC POLICY

An introduction to the theory and practice of public policy aimed at the requirements of justice professionals. This subject analyses policy formation, writing and implementation from the perspectives of the administrator undertaking the process and of the community seeking to respond to government initiatives. This subject aims to provide students with tools for dealing in the public sphere and understanding the exercise of state power.

Courses: JS31, JS33, LW41 **Prerequisite:** JSB014

Credit Points: 12 **Contact Hours:** 3 per week

■ JSB082 LEGAL RIGHTS AND RESPONSIBILITIES

Society demands certain responsibilities from persons classed as adults. Rights and duties fall to the adult person in some of the most important aspects in the accepted lifestyle in our society in terms of housing, relationships and employment. These responsibilities will encompass the majority of adult life. A reasoned analysis of the legal responsibilities involved in housing, marriage and employment is essential.

Course: ED50, JS31, JS33, LW41

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: JSS005

■ JSB083 ADMINISTRATIVE LAW & JUSTICE

Mechanisms of state accountability, their practice and philosophy are examined in order to give justice professionals a working knowledge of their operation. Open government, fair decision-making and administrative justice are key concerns within this field. Merits review, judicial review, freedom of information and the ombuds office are all critiqued and their procedures considered in light of a greater framework of social justice.

Courses: JS31, JS33, LW41

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: JSB316

■ JSB084 JUSTICE AND HUMAN RIGHTS

The political and philosophical constructions known as rights are becoming increasingly important in the Australian justice professions. Both international and domestic documents are analysed in order to develop a cohesive framework of rights in the justice domain. Policy considerations are explored and much of the other material covered in the minor is tied together in the context of human rights policy research.

Courses: ED50, JS31, JS33, LW41

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: JSB314

■ JSB085 LAW AND LEGAL INSTITUTIONS

Provides students with a sound knowledge of relevant legal institutions and procedures, as well as assisting students to develop an ability to analyse and critique both the strengths and weaknesses inherent in our legal system. In so doing, the unit traces the development of law in Australia from its early beginnings to the present, as an outcome of meeting the needs of a changing society.

Course: ED50, JS31, JS33

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: JSS001

■ JSB086 LAW OF CIVIL OBLIGATIONS 1

The development of the law of contract; law governing the formation of contracts; application of the principles of contract law; matters affecting the validity of contracts; remedies for breach of contract; role of equity in modifying common law rules of contract; rational and objective methods in analysing socio-legal issues in contracts, and an analysis of overlaps between tort and contract.

Course: ED50, JS31, JS33

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: JSS002

■ JSB087 LAW OF CIVIL OBLIGATIONS 2

The theoretical bases of Law of Tort in Australia; different types of tort and remedies; application of Law of Tort to case studies; examination of principles through specific decisions in Tort; Tortious remedies available within the social context and an analysis of overlaps between Tort and contract.

Course: ED50, JS31, JS33

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: JSS003

■ JSB088 CRIMINAL LAW AND PROCEDURE

The theoretical basis of Criminal Law in Queensland; application of the law to case studies; use of rational and objective methods when examining legal issues; how criminal law operates in practice within a legal and social context; analysis of the balance between the rights of citizens and police powers, and emergence of a victim-centred criminal justice system.

Course: ED50, JS31, JS33 **Prerequisite:** JSB085

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: JSS004

■ JSB091 RESEARCH DESIGN AND METHODOLOGY

This unit introduces a range of theoretical and applied research methodologies and designs used in the social sciences. It considers both quantitative and qualitative approaches to the research process and to the analysis of data, and it encourages a critical approach to the framing of research questions and to testing research hypotheses. Students will be given practice in the use of a number of data analysis tools.

Courses: JS31, JS33

Credit Points: 12 **Contact Hours:** 3 per week

■ JSB092 APPLIED JUSTICE RESEARCH

This project study unit allows students undertaking the Law Enforcement professional minor to study a topic of personal academic interest which is not otherwise available as a formal subject in the area of policing. This unit differs from other units within the professional minor in that there are a minimum of scheduled lectures and the initiative to choose the topic and to organise the project must come from the students. Students choose a research topic related to contemporary law enforcement issues or activities.

Course: JS31, JS33, LW41

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: JSB312

■ JSB093 INDIGENOUS PEOPLES, RIGHTS AND JUSTICE

British and international systems of law legally sanctioned colonisation and defined the status of Australia's indigenous peoples. In Indigenous Peoples, Rights and Justice students will examine the status of indigenous people in Australia. Indigenous protest, symbolic politics, indigenous rights and political reform are topics which will be discussed through comparative analysis of countries where indigenous populations exist, such as Canada and New Zealand.

Courses: JS31, JS33

Credit Points: 12 **Contact Hours:** 3 per week

■ JSB094 VICTIMOLOGY

This unit explores issues relating to the victim of crime. Central to this study are victim typologies and their relationship to the cause of crime; fear of crime and crime prevention; the impact of crime on victims; victim roles and responsibilities; and victim needs in terms of protection, support and compensation.

Courses: JS31, JS33

Credit Points: 12 **Contact Hours:** 3 per week

■ JSB095 PRIVACY

Privacy is now a major issue in Australian social life. As governments and law enforcement agencies have sought to construct webs of surveillance to protect their interests, privacy has become a major human right and public policy issue. Importantly, public and private interests that compete with privacy are also examined.

Course: JS31, JS33

Credit Points: 12 **Contact Hours:** 3 per week

■ JSB096 SOCIAL PSYCHOLOGY AND THE JUSTICE SYSTEM

Examines social behaviour in terms of intrapersonal, interpersonal and group dynamics and performance in relation to the justice professions.

Course: JS31, JS33

Credit Points: 12 **Contact Hours:** 3 per week

■ JSB097 SOCIAL PSYCHOLOGY OF JUSTICE ORGANISATIONS

This unit explores organisational issues which impact on the separate organisations such as the police, corrective services, the courts, etc. which comprise the justice system. Specific topics will be approached from the perspective of the individual, the groups to which the individual belongs, and the organisation which is made up of these groups. Among the topics studied will be individual behaviour, attitudes and values; group dynamics, communication and leadership, and organisational structure, culture and change.

Courses: JS31, JS33

Credit Points: 12 **Contact Hours:** 3 per week

■ JSB098 FAMILIES AND THE JUSTICE DOMAIN

'The family': historical contradictions; various family processes: identity formation developmental stages; justice systems: the politics of family policy, welfare, violence, courts; family intersections: doing 'justice' to families.

Courses: JS31, JS33

Credit Points: 12 **Contact Hours:** 3 per week

■ JSB202 CONTEMPORARY ISSUES IN AUSTRALIAN SOCIETY 2

Contemporary social issues affecting various organisational levels of society: the individual, the marital dyad, the family and society as a whole; issues of abuse, equity and security; role of policy development and implementation from a social justice perspective.

Courses: JS31, JS33 (external mode only)

Prerequisite: JSB101

Credit Points: 12 **Contact Hours:** 3 per week

■ JSB301 LAW OF EVIDENCE & INVESTIGATION

Professionals involved in the fields of law enforcement and justice administration are frequently required to exercise investigative skills. This unit provides students with a clear understanding of the law relating to the gathering of evidence, interrogation and admissibility of evidence in court. Study includes an examination of the general principles of judicial evidence, witnesses, rules of evidence, admissions and confessions. Issues of evidence of current importance, e.g. issues arising out of inquires such as the 'Operation Trident' inquiry are also explored.

Courses: JS31, JS33 (external mode only)

Prerequisite: JSB204

Credit Points: 12 **Contact Hours:** 3 per week

■ JSB302 IDEOLOGY, ETHICS & JUSTICE

Examination of the notion and related concepts of ideology and how they shape, constrain and drive theories of justice and social policy. The focus is on integrating ethical reflection with application to various spheres of public policy to do with welfare, economics, law and order and the environment.

Courses: JS31, JS33 (external mode only)

Prerequisite: JSB102

Credit Points: 12 **Contact Hours:** 3 per week

■ JSB401 APPLIED CRIMINOLOGY

This unit examines key and emerging issues in criminological debate such as the fear of crime, the role of the victim, criminal careers, white collar crime and crime prevention.

Courses: JS40

Credit Points: 12 **Contact Hours:** 3 per week

■ JSB402 PROFESSIONAL STUDIES 1

This unit is designed to enable students either to extend studies within an area of professional expertise or to extend their knowledge, skills and expertise in another area of professional study. Students may choose from one of the four professional areas on offer: Law Enforcement; Intelligence and Security; Corrections and the Community; or Legal and Justice Policy.

Course: JS40

Prerequisite: Completion of a professional minor, or equivalent.

Credit Points: 12 **Contact Hours:** 3 per week

■ JSB403 PROFESSIONAL STUDIES 2

This unit is designed to enable students to extend studies commenced in the unit JSB402. This will allow for the completion of a secondary major or extended study in one of the four professional areas on offer: Law Enforcement; Intelligence and Security; Corrections and the Community; or Legal and Justice Policy.

Course: JS40

Prerequisite: JSB402

Credit Points: 12 **Contact Hours:** 3 per week

■ JSB404 THESIS

This initial unit will offer students the opportunity to prepare the groundwork for the 15000 word thesis, which is a major part of the Honours program. The thesis must reflect the student's ability to conceptualise, theorise and implement an appropriate research project.

Course: JS40

Prerequisite: JSB091

Credit Points: 12 **Contact Hours:** 3 per week

■ JSB405 JUSTICE ORGANISATIONS

This unit explores organisational issues which impact on the separate organisations such as the police, corrective services, the courts, etc. which comprise the justice system. Specific topics will be approached from the per-

spective of the individual, the groups to which the individual belongs, and the organisation which is made up of these groups. Among the topics studied will be individual behaviour, attitudes and values; group dynamics, communication and leadership; and organisational structure, culture and change.

Course: JS40

Credit Points: 12 Contact Hours: 3 per week

■ JSB406 THESIS

Students are required to submit a research thesis of approximately 15 000 words. It is expected that the thesis will be based upon an empirical study of a particular field related to the justice professions.

Course: JS40

Credit Points: 36 Contact Hours: 3 per week

■ JSB407 THESIS

Part-time students are required to submit a research thesis of approximately 15 000 words. It is expected that the thesis will be based upon an empirical study of a particular field related to the justice professions.

Course: JS40

Credit Points: 12 Contact Hours: 3 per week

■ JSB408 THESIS

Part-time students are required to submit a research thesis of approximately 15 000 words. It is expected that the thesis will be based upon an empirical study of a particular field related to the justice professions.

Course: JS40

Credit Points: 24 Contact Hours: 3 per week

■ JSN001 THEORIES OF JUSTICE 1

Spheres of Justice – epistemologies of justice – models, ideologies, rationality; postmodern justice; justice and the environment; justice and the law; justice and religion; justice and women; comparative justice.

Course: JS51

Credit Points: 12 Contact Hours: 3 per week

■ JSN002 THEORETICAL CRIMINOLOGY

This unit traces the development of theories of crime from the Enlightenment to the present day. Special attention is paid to current theoretical debate and developments.

Course: JS51

Credit Points: 12 Contact Hours: 3 per week

■ JSN003 APPLIED CRIMINOLOGY

This unit examines key and emerging issues in criminological debate such as the fear of crime, the role of the victim, criminal careers, white collar crime and crime prevention.

Course: JS51

Credit Points: 12 Contact Hours: 3 per week

■ JSN004 ISSUES IN CRIMINAL JUSTICE

This unit examines the issue of domestic violence from an interdisciplinary perspective with an emphasis on the criminal justice system response. It will cover topics such as spousal abuse; abuse by relatives; dating violence; abuse in Aboriginal & NESB communities. It will look at the criminal law and the protection orders in Queensland and in other jurisdictions.

Course: JS51

Credit Points: 12 Contact Hours: 3 per week

■ JSN005 THEORIES OF JUSTICE 2

This unit extends and develops ideas and theories introduced in Theories of Justice I. It will allow clear and coherent distinctions to be made about the relative usefulness of competing claims for legitimacy by various justice theorists. The unit focuses upon the interface between public/social policy and the law's claim to be an instrument of social transformation. It will consider

the ways in which ideas of justice, the law and social policy are grounded in theoretical and ideological positions, as well as being reflective of particular ontogenic stages of moral reasoning.

Course: JS51

Credit Points: 12

Prerequisite: JSN001

Contact Hours: 3 per week

■ JSN006 INDEPENDENT STUDY 1

This unit is designed to enable students to pursue particular aspects of their coursework or of professional interest in more depth. It is an opportunity for students to refine and develop research skills. Students are required to complete a piece of research under the guidance of an academic supervisor.

Course: JS51

Credit Points: 12

Contact Hours: 3 per week

■ JSN007 INDEPENDENT STUDY 2

This unit is a continuation of the unit JSN006 – Independent Study 1 and offers students the opportunity to extend further aspects of their coursework or of professional interest in more depth, as well as to continue the process of refining and developing research skills.

Course: JS51

Credit Points: 12

Contact Hours: 3 per week

■ JSN008 INDIGENOUS PEOPLES, RIGHTS AND JUSTICE

British and international systems of law legally sanctioned colonisation and defined the status of Australia's indigenous peoples. In Indigenous Peoples, Rights and Justice students will examine the status of indigenous people in Australia. Indigenous protest, symbolic politics, indigenous rights and political reform are topics which will be discussed through comparative analysis of countries where indigenous populations exist, such as Canada and New Zealand.

Course: JS51

Credit Points: 12

Contact Hours: 3 per week

■ JSN009 SEXED JUSTICE

This unit examines the sexed nature of justice in Australian society. Topics to be investigated include pornography and prostitution, rape, domestic violence, homosexuality and AIDS. Analysis of these topics will be both theoretical and practical, and students will be encouraged to use a variety of sources (policy, parliamentary debates, legislation, judicial decisions and precedents) to examine in depth the phenomenon and validity of sexed justice.

Course: JS51

Credit Points: 12

Contact Hours: 3 per week

■ JSN010 COUNTER DISASTER PLANNING

Students will be required to develop/review a counter disaster plan after being exposed to the cycle of disaster planning.

Course: JS51

Credit Points: 12

Contact Hours: 3 per week

■ JSN011 AUTOMATED TOOLS FOR RESEARCH

This course provides students with an opportunity to use automated tools in support of intelligence and security, and related research. The intelligence analyst works within a range of government and corporate bodies. The products of the analyst are used to provide advantages for planning, policy-making, strategic decision-making and a range of operational practices.

Course: JS51

Credit Points: 12

Contact Hours: 3 per week

■ JSN012 THE LAW, MORALITY AND THE MEDIA

Intelligence and security activities provide an advantage to public and private sector organisations in pursuance

of their missions and goals. The ultimate goal for these support activities can fall within combinations of ethical, unethical, legal and illegal practice. Intelligence and security activities are studied in relation to public and private morality, the rights of individuals, their 'need to know' and their 'right to know'. It examines relationships and responsibilities of intelligence and security professionals and organisations.

Course: JS51

Credit Points: 12 Contact Hours: 3 per week

■ **JSN013 LAW, JUSTICE AND LITERATURE**

Exploring the social and personal domains into which legal and justice systems intrude, jurisprudential thought is today more frequently referring to experiential modes of knowing. Law and justice are seen in a different light when taken out of their discourses and challenged by different perspectives. This subject examines experience gathered through literature and analysed through critical theory, different strands of philosophy and jurisprudence in order to tell us more about our law, our state and ourselves.

Course: JS51

Credit Points: 12 Contact Hours: 3 per week

■ **JSP001 LAW AND GOVERNMENT 1**

This unit aims to introduce students to the institution of government, bureaucracy and the law. With legal processes under increasing scrutiny and social change occurring at a far greater pace than in the past, it is no longer sufficient or possible to 'know what the law is'. Instead, students will acquire an understanding of the relationship between law and society as well as legal problem-solving skills to equip them to adapt as change occurs.

Courses: JS41

Credit Points: 12 Contact Hours: 3 per week

■ **JSP002 PRINCIPLES OF CRIMINAL LAW 1**

This subject exposes students to fundamental principles of criminal law as well as the social and political forces that shape those laws. It focuses on crimes of violence including sexual assault, child abuse, elder abuse and domestic violence. It also looks at criminal defences and property offences.

Courses: JS41

Credit Points: 12 Contact Hours: 3 per week

■ **JSP003 LAW AND GOVERNMENT 2**

This unit complements Law and Government 1. It critically examines the role of the courts, the resolution of disputes and the criminal justice system.

Courses: JS41

Credit Points: 12 Contact Hours: 3 per week Prerequisite: JSP001

■ **JSP004 PRINCIPLES OF CRIMINAL LAW 2**

This subject exposes students to fundamental principles of criminal law as well as the social and political forces that shape those laws in the areas of crimes of morality; drug, traffic and public order offences; war crimes and hate crimes; state corruption and whistleblowers; white collar crime, proceeds of crime and victims of crime. It also looks at the due process aspects of criminal procedure.

Courses: JS41

Credit Points: 12 Contact Hours: 3 per week Prerequisite: JSP002

■ **JSP005 JUSTICE ORGANISATIONS**

This unit explores organisational issues which impact on the separate organisations such as the police, corrective services, the courts, etc. which comprise the justice system. Specific topics will be approached from the perspective of the individual, the groups to which the individual belongs, and the organisation which is made up of these groups. Among the topics studied will be indi-

vidual behaviour, attitudes and values; group dynamics, communication and leadership; and organisational structure, culture and change.

Course: JS41

Credit Points: 12 Contact Hours: 3 per week

■ **JSP006 RESEARCH DESIGN AND METHODOLOGY**

This unit introduces a range of theoretical and applied research methodologies and designs used in the social sciences. It considers both quantitative and qualitative approaches to the research process and to the analysis of data, and it encourages a critical approach to the framing of research questions and to testing research hypotheses. Students will be given practice in the use of a number of data analysis tools.

Courses: JS41

Credit Points: 12 Contact Hours: 3 per week

■ **JSP011 INDIGENOUS PEOPLES, RIGHTS AND JUSTICE**

British and international systems of law legally sanctioned colonisation and defined the status of Australia's indigenous peoples. In Indigenous Peoples, Rights and Justice students will examine the status of indigenous people in Australia. Indigenous protest, symbolic politics, indigenous rights and political reform are topics which will be discussed through comparative analysis of countries where indigenous populations exist, such as Canada and New Zealand.

Courses: JS41

Credit Points: 12 Contact Hours: 3 per week

■ **JSP012 SEXED JUSTICE**

This unit examines the sexed nature of justice in Australian society. Topics to be investigated include pornography and prostitution, rape, domestic violence, homosexuality and AIDS. Analysis of these topics will be both theoretical and practical, and students will be encouraged to use a variety of sources (policy, parliamentary debates, legislation, judicial decisions and precedents) to examine in depth the phenomenon and validity of sexed justice.

Course: JS41

Credit Points: 12 Contact Hours: 3 per week

■ **JSP013 COUNTER DISASTER PLANNING**

The students will be required to develop/review a counter disaster plan after being exposed to the cycle of disaster planning.

Courses: JS41

Credit Points: 12 Contact Hours: 3 per week

■ **JSP014 AUTOMATED TOOLS FOR RESEARCH**

This course provides students with an opportunity to use automated tools in support of intelligence and security, and related research. The intelligence analyst works within a range of government and corporate bodies. The products of the analyst are used to provide advantages for planning, policy-making, strategic decision-making and a range of operational practices.

Course: JS41

Credit Points: 12 Contact Hours: 3 per week

■ **JSP015 THE LAW, MORALITY AND THE MEDIA**

Intelligence and security activities provide an advantage to public and private sector organisations in pursuance of their missions and goals. The ultimate goal for these support activities can fall within combinations of ethical, unethical, legal and illegal practice. Intelligence and security activities are studied in relation to public and private morality, the rights of individuals, their 'need to know' and their 'right to know'. It examines relation-

ships and responsibilities of intelligence and security professionals and organisations.

Course: JS41

Credit Points: 12 **Contact Hours:** 3 per week

■ **JSP016 LAW, JUSTICE AND LITERATURE**

Exploring the social and personal domains into which legal and justice systems intrude, jurisprudential thought is today more frequently referring to experiential modes of knowing. Law and justice are seen in a different light when taken out of their discourses and challenged by different perspectives. This subject examines experience gathered through literature and analysed through critical theory, different strands of philosophy and jurisprudence in order to tell us more about our law, our state and ourselves.

Course: JS41

Credit Points: 12 **Contact Hours:** 3 per week

■ **JSP052 POLICE PROCEDURE AND PRACTICE**

The role and function of policing; enforcement practices: non-arrest, arrest situations; supporting documentation; evidentiary sources and gathering methodology; crime trends and their impact on policing practices.

Courses: JS41

Credit Points: 12 **Contact Hours:** 3 per week

■ **JSP053 ORGANISED CRIME**

The apparent growth of organised crime, both nationally and internationally, in recent years has resulted in a deepening commitment on the part of the law enforcement agencies to its suppression. Although not confined to the association with illicit drugs, the so-called drug trade is a major enterprise behind the proliferation of organised crime. Another consequence of organised crime is the development of corruption through the diverse levels of society. Students therefore gain an understanding of the historical development, social perceptions and consequences and the perceived extent of organised crime. Students also consider the strategies employed to combat organised crime including the extent of investigation and/or Commissions of Inquiry documented to date.

Courses: JS41

Credit Points: 12 **Contact Hours:** 3 per week

■ **JSP054 ISSUES IN POLICING**

This unit endeavours to expose students to the multifarious nature of policing and the impact that societal developments have on policing and vice versa.

Courses: JS41

Credit Points: 12 **Contact Hours:** 3 per week

■ **JSP055 APPLIED JUSTICE RESEARCH**

This project study unit allows students undertaking the Law Enforcement professional minor to study a topic of personal academic interest which is not otherwise available as a formal subject in the area of policing. This unit differs from other units within the professional minor in that there are a minimum of scheduled lectures and the initiative to choose the topic and to organise the project must come from the students. Students choose a research topic related to contemporary law enforcement issues or activities.

Course: JS41

Credit Points: 12 **Contact Hours:** 3 per week

■ **JSP061 PROCESS THEORY AND APPLICATION**

Detailed study and application of the intelligence process (cycle); study of intelligence support to operational staff and organisations; strategic, operational and tactical concepts of intelligence and security; threat and risk assessment relative to protective security – personnel,

materials and infrastructure; industrial and commercial espionage and sabotage.

Courses: JS41

Credit Points: 12 **Contact Hours:** 3 per week

■ **JSP062 PROTECTIVE SECURITY – THEORY AND APPLICATION**

Deals with protective security in its broadest sense; it examines the threat to security in the public, private and national arenas. The nature of espionage, subversion, sabotage, theft and hostage situations are also examined. The basic areas of protective security are personnel, material, physical and information security. Students also conduct risk/threat assessments and cover other areas such as inspections, audits, surveys and reviews; policy, procedures and controls; management aspects; legislation; case studies and models of security.

Courses: JS41

Credit Points: 12 **Contact Hours:** 3 per week

■ **JSP063 INTELLIGENCE RESEARCH – ISSUES, PROCEDURES AND PRACTICE**

Addresses major intelligence issues, intelligence and related security procedures and professional practices. The concept of intelligence in this unit is 'that which confers an advantage' in any professional context. Students apply process methodology: in examining specific societal issues; in recognising different intelligence 'research' procedures for specific issues; and in practical analysis of selected issues, such as terrorism, illegal drugs, fauna smuggling, organised crime (operating in, or having the potential to operate in, Australia), corporate crime, community crime, environmental matters, illegal immigration, national defence and foreign intelligence activities.

Courses: JS41

Credit Points: 12 **Contact Hours:** 3 per week

■ **JSP064 PROTECTIVE SECURITY – ISSUES AND PRACTICE**

Personnel, material, physical and information security are the main areas with protective security. This unit covers the methods and techniques for the collection of information and its management and analysis. Students conduct formal audits and complete written reports on their findings. Planning and controlling the flow of information; anacapa, scan and other analysis tools are studied.

Courses: JS41

Credit Points: 12 **Contact Hours:** 3 per week

■ **JSP071 CORRECTIONS AND THE COMMUNITY 1**

The forerunners of the custodial and community correctional systems and their influence are explored in respect to current correctional processes and philosophies. Contemporary conflicting models and their implications are examined.

Courses: JS41

Credit Points: 12 **Contact Hours:** 3 per week

■ **JSP072 CORRECTIONS AND THE COMMUNITY 2**

Contemporary formal and informal custodial and community corrections processes and procedures are presented. The interaction of correctional policies and community programs is discussed.

Courses: JS41

Credit Points: 12 **Contact Hours:** 3 per week

■ **JSP073 CORRECTIONS AND THE COMMUNITY 3**

The correctional setting and its impact on staff and inmates are examined. Special groups – their unique needs and treatment strategies – are discussed in the context of policies and procedures.

Courses: JS41

Credit Points: 12 **Contact Hours:** 3 per week

■ **JSP074 CORRECTIONS AND THE COMMUNITY 4**

Evaluation of alternative models of corrections is undertaken, and controversial issues explored. Fiscal constraints and administrative dilemmas according to international trends are examined and determination made as to the present and future effectiveness of the correctional system.

Courses: JS41

Credit Points: 12 **Contact Hours:** 3 per week

■ **JSP081 LAW AND PUBLIC POLICY**

An introduction to the theory and practice of public policy aimed at the requirements of justice professionals. This subject analyses policy formation, writing and implementation from the perspectives of the administrator undertaking the process and that of the community seeking to respond to government initiatives. This subject aims to provide students with tools for dealing in the public sphere and understanding the exercise of state power.

Courses: JS41

Credit Points: 12 **Contact Hours:** 3 per week

■ **JSP082 LEGAL RIGHTS AND RESPONSIBILITIES**

Society demands certain responsibilities from persons classed as adult. Rights and duties fall to the adult person in some of the most important aspects in the accepted lifestyle in our society in terms of housing, relationships and employment. These responsibilities will encompass the majority of adult life. A reasoned analysis of the legal responsibilities involved in housing, marriage and employment is essential.

Course: JS41

Credit Points: 12 **Contact Hours:** 3 per week

■ **JSP083 ADMINISTRATIVE LAW & JUSTICE**

Mechanisms of state accountability, their practice and philosophy are examined in order to give justice professionals a working knowledge of their operation. Open government, fair decision-making and administrative justice are key concerns within this field. Merits review, judicial review, freedom of information and the ombuds office are all critiqued and their procedures considered in light of a greater framework of social justice.

Courses: JS41

Credit Points: 12 **Contact Hours:** 3 per week

■ **JSP084 JUSTICE AND HUMAN RIGHTS**

The political and philosophical constructions known as rights are becoming increasingly important in the Australian justice professions. Both international and domestic documents are analysed in order to develop a cohesive framework of rights in the justice domain. Policy considerations are explored and much of the other material covered in the minor is tied together in the context of human rights policy research.

Courses: JS41

Credit Points: 12 **Contact Hours:** 3 per week

■ **LAB320 STUDIES IN LANGUAGE**

The language basis in current approaches to the teaching of English; nature and function of language; dynamics involved in interactive situations; appropriateness of language forms used in various social contexts; educational implications of linguistic diversity within the community; recognition of the developmental features of adolescent language.

Course: ED50

Credit Points: 12 **Contact Hours:** 3 per week

■ **LAB321 WRITING WORKSHOP**

The student, as writer, uses all the language modes in social contexts (either genuine or simulated) to lead to writing in a range of situations. Engagement in these writing situations is designed to bring about personal understanding of the following: the nature of the writing process; the influence of audience and purpose on the final written product; the range of genres (or forms) falling within the writing activity.

Courses: ED50, ED51, ED52

Credit Points: 12 **Contact Hours:** 3 per week

■ **LAB322 LITERATURE IN TEACHING**

Literature teaching in historical perspective; recent developments in theory; poetry in the senior school; teaching drama in the senior school; teaching the novel in the senior school; shorter works (novellas, short stories) and their use in the English curriculum.

Course: ED50, ED51

Credit Points: 12 **Contact Hours:** 3 per week

■ **LAB323 TEACHING ADOLESCENT LITERATURE**

The scope and nature of young adult literature; strategies for evaluation and selection; recent research into adolescents' reading needs, interests and responses; using young adult books in the curriculum.

Course: ED50

Prerequisite: HUB100

Credit Points: 12 **Contact Hours:** 3 per week

■ **LAB325 ENGLISH CURRICULUM STUDIES 1**

The nature of the curriculum area/discipline and its role and contribution as a medium for education; introduction to relevant syllabuses and curriculum documents; lesson and curriculum unit planning activities; and teaching strategies designed to promote a range of learning experiences in selected curriculum areas.

Courses: ED50, ED54

Prerequisites: Normally the completion of 48 credit points in each relevant discipline area.

Credit Points: 12

Contact Hours: 3 per week

■ **LAB326 ENGLISH CURRICULUM STUDIES 2**

Curriculum development within the context of contemporary policies, frameworks and agencies; general principles of measurement, assessment and evaluation; teaching and learning strategies; and issues and directions in curriculum development.

Courses: ED50, ED54

Prerequisite: LAB325

Credit Points: 12

Contact Hours: 3 per week

■ **LAB327 FILM & MEDIA CURRICULUM STUDIES 1**

The nature of the curriculum area/discipline and its role and contribution as a medium for education; introduction to relevant syllabuses and curriculum documents; lesson and curriculum unit planning activities; and teaching strategies designed to promote a range of learning experiences in selected curriculum areas.

Courses: ED50, ED54

Prerequisites: Normally the completion of 48 credit points in each relevant discipline area.

Credit Points: 12

Contact Hours: 3 per week

■ **LAB328 FILM & MEDIA CURRICULUM STUDIES 2**

Curriculum development within the context of contemporary policies, frameworks and agencies; general principles of measurement, assessment and evaluation; teaching and learning strategies; and issues and directions in curriculum development.

Courses: ED50, ED54

Prerequisite: LAB327

Credit Points: 12

Contact Hours: 3 per week

■ **LAB329 LOTE CURRICULUM STUDIES 1**

The nature of the curriculum area/discipline and its role and contribution as a medium for education; introduction to relevant syllabuses and curriculum documents; lesson and curriculum unit planning activities; and teaching strategies designed to promote a range of learning experiences in selected curriculum areas.

Courses: ED50, ED54

Prerequisites: Normally the completion of 48 credit points in each relevant discipline area.

Credit Points: 12 **Contact Hours:** 3 per week

■ **LAB330 LOTE CURRICULUM STUDIES 2**

Curriculum development within the context of contemporary policies, frameworks and agencies; general principles of measurement, assessment and evaluation; teaching and learning strategies; and issues and directions in curriculum development.

Courses: ED50, ED54

Prerequisite: LAB329

Credit Points: 12 **Contact Hours:** 3 per week

■ **LAB331 LANGUAGE PROGRAMMING & ASSESSMENT**

Development of an understanding and ability to design programs for promoting and monitoring individual language development through the study of: a structure and process for programming; objectives as a framework for programming and assessment; language resources for classroom use; classroom program development; and monitoring effectiveness.

Courses: ED50, ED51

Prerequisite: LAB338

Credit Points: 12 **Contact Hours:** 3 per week

■ **LAB332 CHILDREN'S LITERATURE IN THE PRIMARY CURRICULUM**

Explorations of the role of children's literature in the primary school; criteria for selecting children's literature; exploration of the various literary genres; leading to the use of literature as an integrating device in the development of programs in the primary school.

Course: ED51

Credit Points: 12 **Contact Hours:** 3 per week

■ **LAB333 LANGUAGE IN KEY LEARNINGS**

The relationship between language and learning; the role of language across the curriculum; language in critical literacy and assessment.

Course: ED51

Credit Points: 12 **Contact Hours:** 3 per week

■ **LAB334 PRIMARY LOTE CURRICULUM STUDIES**

This unit introduces concepts and skills in LOTE curriculum and methodology and prepares appropriately qualified students to teach French, German, Indonesian or Japanese in the upper primary school.

Course: ED51

Credit Points: 12 **Contact Hours:** 3 per week

■ **LAB336 LINGUISTICS IN TEACHING**

This unit complements LAB335 by providing a systematic study of linguistics, and in particular Systemic Functional Linguistics, in a range of language learning settings at home and at school.

Course: ED51

Prerequisite: LAB335

Credit Points: 12 **Contact Hours:** 3 per week

■ **LAB337 WORKSHOP FOR WRITERS**

Develops an understanding and ability to compose a range of texts for presentation in spoken, written, dramatic or audiovisual presentation. Students are involved in: the exploration of relevant personal and social issues; the composition and critical analysis of a range of texts; and reflection upon the language features and processes appropriate for composing and presenting effective texts.

Course: ED51

Credit Points: 12

Prerequisite: LAB336

Contact Hours: 3 per week

■ **LAB338 CLASSROOM LANGUAGE LEARNING**

Promotes an understanding and ability to develop language learning activities, process and strategies through the study of: a functional view of language; the concept of genre; the child as a language learner; resources for language learning; strategies for promoting mastery of genre and associated language.

Course: ED51

Credit Points: 12

Prerequisite: EDB324

Contact Hours: 3 per week

■ **LAB339 ADULT LITERACY AND SECOND LANGUAGE LEARNERS**

Explores the special literacy needs of second language learners and investigates teaching approaches which recognise these needs and develop cross-cultural awareness and communication strategies. Topics include a comparison of first and second language literacy; the relationship between second language oracy and literacy; issues in cross-cultural communication; the literacy impact for non-English speaking background learners of current policy initiatives and workplace practices needs analysis in second language literacy course design.

Course: ED54

Credit Points: 12

Contact Hours: 3 per week

■ **LAB340 LANGUAGE, TECHNOLOGY & EDUCATION**

Foundational perspectives on language, technology and communication in educational contexts; language as functional system and social semiotic; educational implications of the interconnections among language, technology, discourse and power; the student as reader and writer of academic prose; introduction to the language and technology of instruction.

Courses: ED50

Credit Points: 12

Contact Hours: 3 per week

■ **LAB341 LANGUAGE, TECHNOLOGY AND EDUCATION**

Foundation unit concerned with language, literacies and technology in educational and worldwide contexts. Contemporary views of language and technological literacies as social activities are explored. Educational implications of the interconnections between technology, language discourse and power are applied to educational setting. The uses of language discourse and power are applied to educational settings. The use of language and technology in instruction is introduced. Unit is offered by the Schools of Language, Literacy and Education and Maths, Science and Technology Education.

Course: ED50

Credit Points: 12

Contact Hours: 3 per week

■ **LAB342 LANGUAGE AND MATHEMATICS CURRICULUM 1**

This unit consists of two half units on language and mathematics education. In the language section, students will explore the theory related to reading and viewing a variety of texts, and will build strategies and resources appropriate for the primary classroom. The mathematics section will provide frameworks for teaching mathematics and techniques for the strands of number (whole number, fractions, decimals and operations) and working mathematically (problem solving).

Course: ED51

Credit Points: 12

Contact Hours: 3 per week

■ **LAB343 LANGUAGE AND MATHEMATICS CURRICULUM 2**

This unit complements Language and Mathematics Curriculum 1 and consists again of two half units of language and mathematics education. The language com-

ponent of this unit explores the theory, strategies and resources for writing, speaking and listening in a range of genres in a variety of social settings. The mathematics section focuses on particular techniques for teaching the strands of space (shape, size and position), measurement (length, area, etc.) and chance and data (statistics, graphs and probability).

Course: ED51

Credit Points: 12 **Contact Hours:** 3 per week

■ **LAB344 LANGUAGE AND LITERACY FOUNDATIONS**

This unit will introduce students to the nature and development of language and literacy in the contexts of the community, the university and the school. Topics will include: the nature and function of language; theories of language and literacy acquisition; intergenerational and situational literacies; the registers of school language; the nature and scope of text types used in the classroom, the university and the community; the social and personal implications of the development and attainment of literacy proficiency, including academic literacy.

Course: ED51, ED52

Credit Points: 12 **Contact Hours:** 3 per week

■ **LAB345 LOTE/SECOND LANGUAGE FOUNDATIONS**

This unit will focus on first and second language development; cross-cultural communication; Australia's immigrant and indigenous language communities; the needs of second language/second dialect learners, and procedures necessary for the maintenance or development of bilingualism and bidialectism in school age populations.

Course: ED51

Credit Points: 12 **Contact Hours:** 3 per week

■ **LAB410 LANGUAGE CURRICULUM ISSUES**

A critical examination of the issues underpinning language education today and an action research project into classroom innovation or a detailed child study of language development.

Course: ED26

Credit Points: 12 **Contact Hours:** 3 per week

■ **LAB411 ADVANCED STUDIES IN FILM AND MEDIA CURRICULUM**

This unit will examine the classroom implications of new policies and curriculum changes in Media Education. These include the relation of the QDE 1-10 Media Education Guidelines to other curriculum areas such as Arts, English, Social Science and Technology Education and the programming implications of such Film and Media Curriculum issues as audience effects, representation, media ownership and institutions, multimedia technologies and critical literacies.

Course: ED50

Credit Points: 12 **Contact Hours:** 3 per week

■ **LAB412 ADVANCED STUDIES IN ENGLISH, ESL CURRICULUM**

This unit will focus in more depth on selected issues related to the teaching of English and English as a Second Language in the secondary school. Topics will include: literature and popular culture in the classroom; materials development for non-native speakers of English; language, multiculturalism and ideology; school to work transition programs; contemporary issues in language education, linguistics and cultural studies.

Course: ED50

Credit Points: 12 **Contact Hours:** 3 per week

■ **LAB413 PROGRAMMING AND ASSESSMENT IN LANGUAGE AND MATHEMATICS**

The focus of this unit is on designing programs/units to promote and monitor individual language and mathemat-

ics development. This unit will bring perspectives from critical theory to the linked processes of program design and assessment in primary language and mathematics. In particular, the unit will examine the effects of technological change and current reporting practices on unit development, pedagogy and assessment. This includes developing an understanding of the principles and processes involved in planning the effective use of a range of language and maths resources for use in classrooms. A range of techniques and instruments for monitoring development will be explored. These will be related to reporting techniques such as the Student Performance Standards.

Course: ED51

Credit Points: 12 **Contact Hours:** 3 per week

■ **LAB414 ADVANCED TOPICS IN LANGUAGE EDUCATION**

This unit will provide students with the opportunity of exploring in more detail literature and language-related curriculum issues in the primary school. Topics will include literature and popular culture in the classroom; language and gender; language, multiculturalism and ideology; the student as linguistic ethnographer.

Course: ED51

Credit Points: 12 **Contact Hours:** 3 per week

■ **LAB440 RECENT DEVELOPMENTS IN THE TEACHING OF WRITING**

Development of writing in the light of the language in use model, recent research, and classroom practice. It is designed for the P-12 teacher. Students are expected to develop their own folio of writing, an understanding of current approaches to writing curriculum, and writing programs for their classrooms.

Course: ED26

Credit Points: 12 **Contact Hours:** 3 per week

■ **LAB441 CHILDREN'S LITERATURE**

Evaluative criteria in children's literature; genres; teaching strategies for promoting the use of children's literature; reader response theories.

Course: ED26, ED51, ED52

Prerequisites: Language arts and literature studies at Diploma of Teaching level

Credit Points: 12 **Contact Hours:** 3 per week

■ **LAB443 TRENDS IN THE TEACHING OF READING**

Provides students with the opportunity to extend their understanding of the reading process; examines current views about reading in order to identify key concepts of the theory; implications for classroom practice are drawn; identifies factors which influence readers and texts; the roles these play in the understanding of the meanings made; develops learning situations based on these understandings.

Course: ED26

Prerequisites: Studies in the teaching of reading at Diploma of Teaching level

Credit Points: 12 **Contact Hours:** 3 per week

■ **LAB446 GRAMMAR FOR WRITERS**

Designed to help teachers develop some systematic knowledge about language and grammar in particular. It looks at the questions: What is grammar?; What grammars are available to us? It then focuses in some detail on systemic functional grammar.

Courses: ED26, ED51, ED52

Prerequisites: Studies in the teaching of reading at Diploma of Teaching level

Credit Points: 12 **Contact Hours:** 3 per week

■ **LAN608 SECOND LANGUAGE ACQUISITION**

Research into second language acquisition is providing

new insights into the complex processes involved in natural and instructed language development. This unit extends participants' knowledge of research into, and theories of, second language acquisition, and explores pedagogical implications and the relevance of research and theories to the enhancement of second language acquisition and learning.

Courses: ED14, ED77 Credit Points: 12

■ **LAN609 ISSUES IN LANGUAGE AND LITERACY TEACHING**

This unit provides an understanding of the historical, theoretical, conceptual and research bases of program development and classroom instruction in English language and literacy.

Courses: ED11, ED13 Credit Points: 12

■ **LAN611 ADULT AND WORKPLACE LITERACY AND NUMERACY**

An exploration of how the field of adult literacy and numeracy has evolved; the changing nature and roles of literacies and numeracies in contemporary societies; how literacy and numeracy practices are embedded in particular settings, e.g. workplaces, and how cultural, political and economic factors impinge on adult literacy and numeracy learning in different contexts.

Courses: ED13, ED11, ED77 Credit Points: 12

■ **LAN612 PRINCIPLES OF SECOND LANGUAGE METHODOLOGY**

The range of approaches to second language learning and the theories of language and learning which underpin them. Theories of language and learning and their implications for TESOL; the social context of learning and its impact on methodological decision-making; current approaches and methods in TESOL; the roles of teachers and learners in the TESOL classroom.

Courses: ED14, ED77 Credit Points: 12

■ **LAN613 SECOND LANGUAGE CURRICULUM DESIGN OPTIONS**

The factors which influence teachers in the development of language programs. Includes analysis of the following areas: learner profiles and needs; aims and objectives; processes and criteria for selecting methodology; content selection and sequencing; choice and evaluation of materials and resources.

Courses: ED14, ED77 Credit Points: 12

■ **LAN614 RESEARCH METHODS IN SECOND LANGUAGE EDUCATION**

This unit will introduce students to methods and techniques which are used by classroom teachers and language educators to undertake small and large scale research projects and to report research findings in journals and other publications.

Courses: ED14, ED77 Credit Points: 12

■ **LAN615 DIRECTED READING IN SECOND LANGUAGE EDUCATION**

This unit provides an opportunity for teachers and others involved in TESOL to review current research articles to gain an overview of developments in TESOL/ Applied Linguistics and to explore one or two personal interest areas in greater depth.

Courses: ED14, ED77 Credit Points: 12

■ **LAN616 LANGUAGE ASSESSMENT AND PROGRAM EVALUATION IN TESOL**

Theories and practices in program evaluation, language testing and proficiency assessment. It examines and evaluates standardised tests and instruments which are used to assess the English language proficiency of speakers for whom English is a second language.

Courses: ED14, ED77 Credit Points: 12

■ **LAN617 PERSONALISED LANGUAGE DEVELOPMENT**

Language learning is a lifelong task. This unit allows teachers to take a program of language development aimed at improving their level of proficiency and enhancing their cultural awareness. Students wishing to take this unit should discuss options with the Coordinator.

Courses: ED14, ED77 Credit Points: 12

■ **LAN618 TECHNOLOGY AND SECOND LANGUAGE LEARNING**

The twentieth century has seen a rapid change in the technology available to language teachers. An exploration of the creative teaching potential of this technology in areas such as computer enhanced language learning (CELL), interactive multimedia (including CD-room and video disc) and the use of linear video, word processing and audio materials. The unit will also explore access to and pedagogical uses of electronic communication such as e-mail, list servers and bulletin boards.

Courses: ED14, ED77 Credit Points: 12

■ **LAN619 DISCOURSE ANALYSIS**

When we use language to enact our everyday lives, to teach and to learn, we use texts to do so. This unit provides a means for analysing and understanding how texts make meaning linguistically. Students will engage in analysis and discussion of text level meaning via genre, register and cohesion; clause level meaning via Transitivity, Mood and Theme/Rheme; group level meaning making via nominal, verbal and prepositional groups, and the significant linguistic features of written as contrasted with spoken language.

Courses: ED14, ED77 Credit Points: 12

■ **LAN620 LANGUAGE AND CULTURE**

The relationship between language and culture; that is, how language is a social phenomenon, the use of which varies according to context. This close relationship is particularly relevant in crosscultural settings such as the ESL classroom.

Courses: ED14, ED77 Credit Points: 12

■ **LAN621 TEXTUAL AND CULTURAL STUDIES FOR ENGLISH EDUCATION**

A critical study of recent literary and cultural theories, curricular and teaching materials leads students to consider how curricula and pedagogy, teachers and learners have been variously constituted according to theoretical discourses of textuality and culture.

Courses: ED13, ED11 Credit Points: 12

■ **LAN622 FUNCTIONAL GRAMMAR AND DISCOURSE**

An introduction to functional grammar and discourse semantics. These provide tools for analyses of how texts make meaning – whether spoken or written, whether for pedagogical or research purposes.

Courses: ED11, ED13

Credit Points: 12 Contact Hours: 3 per week

■ **LAP401 ENGLISH CURRICULUM STUDIES I**

Introduction to English curriculum and its role in secondary education; examination of relevant English syllabuses and demonstration of ways to translate language learning principles into lesson plans and curriculum units.

Course: ED37

Credit Points: 12 Contact Hours: 3 per week

■ **LAP402 ENGLISH CURRICULUM STUDIES 2**

Continuation of LAP401. Content, processes and materials appropriate to the planning and implementation of

English programs; methods of assessment; current professional issues in English teaching.

Course: ED37 Prerequisite: LAP401

Credit Points: 12 Contact Hours: 3 per week

LAP403 LOTE CURRICULUM STUDIES 1

Current theories and practice in LOTE teaching/learning with particular reference to the Queensland context.

Course: ED37

Credit Points: 12 Contact Hours: 3 per week

LAP404 LOTE CURRICULUM STUDIES 2

Continuation of LAP403. Development of a practical theory of teaching based on an understanding of the LOTE context in Queensland; development of language programs and teaching resources which are responsive to the diverse needs of learners.

Course: ED37

Prerequisite: LAP403

Credit Points: 12 Contact Hours: 3 per week

LAP405 FILM & MEDIA CURRICULUM STUDIES 1

Introduction to the Film and Media curriculum and its role in secondary education; examination of relevant media syllabuses and demonstration of ways to translate concepts in media education into lesson plans and curriculum units.

Course: ED37

Credit Points: 12 Contact Hours: 3 per week

LAP406 FILM & MEDIA CURRICULUM STUDIES 2

Continuation of LAP405. Content, processes and materials appropriate to the planning and implementation of Media Studies programs; methods of assessment; current professional issues in media teaching.

Course: ED37

Prerequisite: LAP405

Credit Points: 12 Contact Hours: 3 per week

LAP407 ENGLISH AS A SECOND LANGUAGE CURRICULUM STUDIES 1

Introduction to the design and development of curriculum, materials and resources to meet the general and specific needs of learners who are non-native English speakers and who require higher English language proficiency levels for study purposes.

Course: ED37

Credit Points: 12 Contact Hours: 3 per week

LAP408 ENGLISH AS A SECOND LANGUAGE CURRICULUM STUDIES 2

Continuation of LAP407 showing students how curriculum, materials and resources are implemented through appropriate approaches, methodologies and techniques for individuals, groups or whole classes of learners who are non-native speakers of English.

Course: ED37

Prerequisite: LAP407

Credit Points: 12 Contact Hours: 3 per week

LAP409 PRIMARY LOTE CURRICULUM STUDIES 1

Current theory and practice in LOTE teaching/learning in the primary school with particular emphasis on the intellectual, physical, emotional and social needs of young learners and the need for teaching approaches drawn from general educational theory together with an understanding of second language acquisition.

Course: ED37

Credit Points: 12 Contact Hours: 3 per week

LAP410 PRIMARY LOTE CURRICULUM STUDIES 2

Continuation of LAP409. Content, processes and materials appropriate to the planning and implementation of LOTE programs in the primary school which integrate culture and language, articulate with the rest of the primary curriculum, and in which learners become more

interested in, and aware of, languages and cultures other than their own.

Course: ED37

Credit Points: 12 Contact Hours: 3 per week

LAP440 LANGUAGE & LITERACY 1

The role of language in society; how language changes according to the purpose for which it is used as well as the social and cultural contexts; the functions and structure of a range of genres; the contribution of the home to children's language development.

Course: ED36

Credit Points: 12 Contact Hours: 3 per week

LAP441 LANGUAGE & LITERACY 2

Development of a range of strategies/activities which promote language learning in a classroom; techniques/instruments for observing and monitoring language growth. Preparation and development of a unit of language experiences for a class.

Course: ED36

Prerequisite: LAP440

Credit Points: 12 Contact Hours: 3 per week

LAP501 FOUNDATIONS OF TEACHER-LIBRARIANSHIP

Philosophy and theories of teacher-librarianship and interpersonal communication necessary to be responsive to the needs of school communities and emerging educational trends.

Course: ED25

Credit Points: 12 Contact Hours: 3 per week

LAP502 CURRICULUM & RELATED RESOURCES

Current curricula P-12: content and processes; evaluative criteria for the selection of materials across the curriculum; basic reference and information sources; collection development.

Course: ED25

Credit Points: 12 Contact Hours: 3 per week

LAP503 LITERATURE & LITERACY: RESOURCES & STRATEGIES

Resources and strategies for teacher-librarians to enable them to work with teachers in language across the curriculum; developmental approach to reading and the selection of materials; genre studies; reader response theories; promotion strategies.

Course: ED25

Credit Points: 12 Contact Hours: 3 per week

LAP504 SCHOOL LIBRARY RESOURCES: ORGANISATION & ACCESS

School library administration and organisation systems, including computer applications; bibliographic organisation and implications for self-directed learning; organisation and maintenance of, and access to, resources including equipment; field program, including school experience (three weeks).

Course: ED25

Credit Points: 12 Contact Hours: 3 per week

LAP505 COMMUNICATION & MANAGEMENT IN SCHOOL LIBRARY RESOURCE CENTRES

Studies in management of school library resource centres; goal setting; time management, communication models; interpersonal and organisational communication patterns; problem solving and conflict management; innovation, intervention and change; advocacy and promotion; writing for a purpose.

Course: ED25

Prerequisite: LAP501

Credit Points: 12 Contact Hours:

LAP506 INFORMATION SERVICES FOR SCHOOLS

Implications of the information age; advanced reference

skills; computer-based information services with in-depth study of two, selected by the student.

Course: ED25 Prerequisite: LAP502
Credit Points: 12 Contact Hours: 3

■ **LAP507 AUSTRALIAN LITERATURE FOR YOUNG PEOPLE**

History of Australian children's books to 1959; development and critical assessment of Australian children's literature since 1960 in book and film.

Course: ED25 Credit Points: 12

■ **LAP509 DIRECTED STUDY**

An individually designed unit which allows students, under the staff supervision, to increase their knowledge relevant to teacher-librarianship.

Course: ED25 Credit Points: 12

■ **LAP510 INTERACTIVE TECHNOLOGIES IN INSTRUCTION**

Interactive communications and resources; videodisc; teleconferencing; computer conferencing; electronic mail; planning an instructional program.

Course: ED25 Credit Points: 12 Contact Hours: 3

■ **LAP511 LITERACY EDUCATION & LIBRARIES**

Educational role of libraries; literacy and basic education programs; literacy resource collections; multicultural library services; international developments.

Course: ED25 Credit Points: 12

■ **LAP512 LITERATURE FOR YOUNG PEOPLE**

Historical development of imaginative literature; evolution of books for young people in present social and cultural contexts; writers and illustrators from European, Commonwealth and American countries; teaching strategies for eliciting reader responses.

Course: ED25 Credit Points: 12

■ **LAP513 MEDIA LITERACY & THE SCHOOL**

Mass media communication processes and their implications for teaching and learning; semiotics; influences of media on people; advertising and mass media research techniques; media ownership issues; future trends in mass media technologies.

Courses: ED25, ED51, ED52 Credit Points: 12

■ **LAP514 REFERENCE SERVICES & MATERIALS**

Extension of studies in reference and information services relevant to schools; reference interview; using an existing school's resource collection; knowledge and use of information agencies and services external to the school. External with three-day study school or six two-hour evening sessions.

Course: ED25 Credit Points: 12

■ **LAP515 RESOURCE SERVICES FOR SPECIAL NEEDS**

Resource services designed for students with special needs relating to physical or intellectual impairments, socio-economic or cultural circumstances; the theory and practice of mainstreaming; the inclusive School Resource Centre.

Course: ED25 Prerequisite: LAP502
Credit Points: 12

■ **LAP516 SPECIAL SEMINAR**

Study of a specific aspect of teacher-librarianship, the unit to be determined by the University according to need and/or the availability of special expertise.

Course: ED25 Credit Points: 12

■ **LAP517 STORYTELLING**

Function of the story and storytelling in learning and

teaching; preparing, developing and delivering stories; resources; storytelling across the curriculum.

Course: ED25, ED51, ED52
Credit Points: 12 Contact Hours: 3 per week

■ **LAP518 VISUAL LITERACY & RESOURCE DESIGN**

Visual literacy; learning styles; interpretation; design and evaluation of visually-based resources.

Course: ED25 Credit Points: 12

■ **LEB304 CHILDREN WITH SOCIAL & EMOTIONAL DIFFICULTIES**

The overview of social and emotional development, theories of social and emotional development; adult-child relationships and issues of authority and discipline; the socialisation of emotions, expression of emotions, emotional disturbances; self-concept and self-esteem. One of four subjects which offer enhanced background in the inclusion of children with disabilities and learning difficulties.

Course: ED51, ED52
Credit Points: 12 Contact Hours: 3 per week

■ **LEB305 UNDERSTANDING CHILDREN WITH INTELLECTUAL DISABILITIES**

Introduction to intellectual impairment, cognitive development delay, slow learners and the most prevalent conditions which include a degree of cognitive handicap; theory and practice relating to classroom responses in regular settings; assessment of functional attainments and planning learning in basic curriculum areas; second of four subjects which offer enhanced background in the inclusion of children with disabilities and learning difficulties.

Course: ED51, ED52
Credit Points: 12 Contact Hours: 3 per week

■ **LEB331 TEACHING CHILDREN WITH LOW INCIDENCE DISABILITIES**

Introduction to a wide range of low incidence exceptionalities (e.g. sensory impairments, developmental delay and health impairments such as Epilepsy, Asthma and Hepatitis, etc.); methods of managing associated disabling conditions; implementation and evaluation of programming; support and referral services.

Courses: ED50, ED51, ED52, ED54, ED37
Credit Points: 12 Contact Hours: 3 per week

■ **LEB332 TEACHING EXCEPTIONAL STUDENTS**

Integrates a basic understanding and application of learning theory as it applies to exceptional populations. Focuses on approaches to teaching particular exceptional groups. Provides an opportunity for development of specialist skills and resources in one of the following areas: (a) students with learning difficulties; (b) gifted students; (c) students with low incidence disabilities, e.g. hearing impaired, visually impaired or physically handicapped; (d) behaviourally or emotionally disturbed students.

Courses: ED50, ED51, ED52, ED54, ED37
Credit Points: 12 Contact Hours: 3 per week

■ **LEB333 ADULT LEARNING AND DEVELOPMENT**

The psychological foundations of human learning and development with special emphasis on adults. Contemporary theories and research issues such as cognition and learning, the effect of motivation on learning, understanding group dynamics, self/identity development, and creating effective learning environments will be explored.

Course: ED54
Credit Points: 12 Contact Hours: 3 per week

■ **LEB334 ACQUISITION AND ADAPTABILITY OF WORKPLACE KNOWLEDGE AND SKILLS**

Explores the underlying theoretical constructs which may enhance the acquisition of knowledge and skills. In accord with the National Training Reform Agenda, issues such as multi-skilling, contextualised learning, intervention to accelerate performance, and transfer of knowledge and skill are addressed.

Course: ED54
Credit Points: 12 Contact Hours: 3 per week

■ **LEB335 HUMAN DEVELOPMENT & EDUCATION**

Life span development for students interested in early childhood, primary or secondary. Theoretical perspectives on human development; cognitive, language, moral and social-emotional development; understanding differences in learners: the impact of ethnicity and culture on human development, exceptional development, and the concept of inclusive education.

Courses: ED50, ED51, ED52
Credit Points: 12 Contact Hours: 3 per week

■ **LEB336 PSYCHOLOGY OF LEARNING & TEACHING**

Theories of learning, metacognition, motivation, problem-solving, thinking and creativity. Intelligence and thinking styles. Psychological dimensions of assessment. Creating optimum environments for learning. Teaching and learning implications of ethnicity and culture. Teaching to difference in a context of inclusive education.

Courses: ED50, ED51, ED52, ED53
Credit Points: 12 Contact Hours: 3 per week

■ **LEB337 GIFTED LEARNERS**

This unit provides a framework for understanding and evaluating the needs of gifted learners. It emphasises identification, learning and teaching styles, sound emotional issues, research findings and resources associated with gifted learners. Provision is also made for some practicum work with gifted learners.

Courses: ED37, ED50, ED51, ED52, ED54
Credit Points: 12 Contact Hours: 3 per week

■ **LEB338 THE INDIVIDUAL IN ADULT AND WORKPLACE EDUCATION**

Tailoring instruction to the needs and strengths of individuals and acquiring confidence in planning, organising and implementing learning experiences. The focus ranges from setting up initial meetings to creating responsive positive learning environments and evaluating outcomes in terms of individual learners.

Course: ED54
Credit Points: 12 Contact Hours: 3 per week

■ **LEB420 INTERPERSONAL PSYCHOLOGY IN EDUCATION**

Historical development and major principles of interpersonal psychology; concepts related to the formation and development of interpersonal relationships; particular concepts and their application to education; interpersonal relationships with exceptional students; emotionality; models of effective teaching; self-concept; small group development; applications of interpersonal psychology. Study school for external students strongly recommended.

Course: ED26
Credit Points: 12 Contact Hours: 3 per week

■ **LEB421 APPLIED STRATEGIES IN CLASSROOM LEARNING**

Teachers as researchers; contemporary approaches to exploring classroom interaction and teaching/learning processes; teacher communication and expectancy ef-

fects; promoting cooperative learning; learning and teaching styles; teachers' concepts of teaching and reflective processes.

Course: ED26
Credit Points: 12 Contact Hours: 3 per week

■ **LEB430 CREATIVITY IN PROBLEM SOLVING**

Creativity is an often advocated, loosely discussed, presumed phenomenon much sought after as an educational objective both in general and as curriculum specific. This unit familiarises students with the history of this concept's emergence, its definitional problems, current theories and models, and aims to ensure that their presentation promotes the concept as an aspect of problem solving in personal development and pedagogical applications.

Course: ED26
Credit Points: 12 Contact Hours: 3 per week

■ **LEB431 INTERACTIVE TEACHING STRATEGIES**

Interactive Teaching Strategies offer alternatives to whole-class or lecture methods of presentation, and can be used with any age level and in any content area (K-12, TAFE, UNI). They increase confidence, enthusiasm, and enjoyment of learning; insure less separation due to race, gender, ethnicity, or status; make learning relevant to individual experience, and invite the use of higher order thinking skills. This is a practical, hands-on subject, structured according to principles of adult learning, a workshop format with contract-based assessment.

Course: ED26, ED51
Credit Points: 12 Contact Hours: 3 per week

■ **LEB441 EDUCATIONAL COUNSELLING**

The nature of counselling/helping in educational contexts; the educator as counsellor; characteristics of effective helpers, practical development of communications skills, building an empathic relationship; structuring the counselling process; application of some counselling theories to the educational contexts; practical sessions using educationally based role plays to demonstrate effective use of the skills learned. Compulsory study school for external students. Incompatible with Studies in Counselling or equivalent at Diploma of Teaching level.

Courses: ED26, ED37, ED50, ED51, ED52, ED54, ED61
Credit Points: 12 Contact Hours: 3 per week

■ **LEB442 ADVANCED EDUCATIONAL COUNSELLING**

The major theoretical approaches to counselling are applied to problems and concerns arising in the educational context. Theories include: Psychoanalytic, Gestalt, Behaviour, Rational-Emotive, and Reality Therapy. Skills and techniques associated with each major theory are presented and related to educationally based problems and concerns. The effects and outcomes of counselling interventions.

Course: ED26
Credit Points: 12 Contact Hours: 3 per week

■ **LEB443 HUMAN SEXUALITY & LEARNING**

Key topics in sexual behaviour and learning such as heterosexual and homosexual sexuality across the life span, contraception, abortion, STDs, child sexual abuse, sexual assault, pornography. Implications for school, community, and health-care workers and educators, with emphasis on the former. Compulsory two-day study school for external students.

Courses: ED26, ED50, ED51, ED52, ED54, NS40, NS48
Credit Points: 12 Contact Hours: 3 per week

■ **LEB444 HUMAN SEXUALITY AND DEVELOPMENT**

Medical, legal, and developmental issues in human sexual behaviour related to sexuality and disability/illness, infertility and its options, pregnancy and birthing, sexuality and aging, sexual dysfunction, transsexuality, and HIV/AIDS. Implications for school, community and health-care workers and educators, with emphasis on the latter. Compulsory two-day study school for external students.

Course: ED26, ED50, ED51, ED52, ED54, NS40, NS48

Prerequisite/Corequisite: LEB443

Credit Points: 12 Contact Hours: 3 per week

■ **LEB445 STUDIES IN ALCOHOL & OTHER DRUGS**

Drug use, misuse and abuse covers a very wide range of substances and situations. This unit, rather than focusing on lurid details of the street drug scene, aims at developing an awareness that supportive elements contributing to an overall drug education strategy need to be found in every part of the curriculum. While a range of strategies is encountered, some may not even mention drugs while others may help young people handle specific situations.

Course: ED26

Credit Points: 12 Contact Hours: 3 per week

■ **LEB446 PSYCHOEDUCATIONAL ASSESSMENT**

Assessment techniques and strategies in the educational context; assessment of intelligence, academic skills, aptitude, personality; reliability, validity, test construction and standardisation procedures; the process of administering assessment instruments in schools; interpretation of test results and assessment data; using assessment data in programming and placement in educational institutions.

Course: ED26

Credit Points: 12 Contact Hours: 3 per week

■ **LEB448 WORKING IN TEAMS**

Teachers, administrators, students, parents and other professionals in education, health, welfare, and law often work together in different team situations. Individual and group processes that lead to effective team building and teamwork within schools or between agencies are studied, along with practical applications relevant to professionals taking this unit.

Course: ED26

Credit Points: 12 Contact Hours: 3 per week

■ **LEB480 RESEARCH METHODS IN EDUCATION**

Development of an awareness and understanding of the research process for a historical, socio-cultural, ethical and theoretical perspective; the validity, applicability and suitability of various research strategies for specific educational endeavours; comprehension and evaluation of research findings drawn from a variety of perspectives, paradigms and methodologies; development of skills to conduct research appropriate to answer questions.

Courses: ED23, ED24, ED26, ED37, ED50, ED51, ED52, ED54

Credit Points: 12 Contact Hours: 3 per week

■ **LEN602 ADVANCED EDUCATIONAL COUNSELLING**

The major theoretical approaches to counselling are applied to problems and concerns arising in the educational context. Theories outlined include Psychoanalytic, Adlerian, Existential, Person-Centred, Gestalt, Transactional Analysis, Behaviour, Rational-Emotive, and Reality. Skills and techniques associated with each major theory will be presented and related to educationally based prob-

lems and concerns. The effects and outcomes of counselling interventions will be investigated and ethical issues will be addressed.

Courses: ED13, ED11, ED61

Prerequisites: LEB441

Credit Points: 12

Incompatible with: LEB442

■ **LEN603 EDUCATIONAL COUNSELLING PROFESSIONAL PRACTICE**

Professional practices of educational counsellors working in the P-12 context; intervention, prevention, affective, and developmental programs discussed; adolescent issues and career counselling outlined; consultation: models, theories and practices; self-management skills highlighted: time management, program evaluation, accountability and decision-making discussed.

Courses: ED13, ED11, ED61

Credit Points: 12

■ **LEN604 PSYCHOEDUCATIONAL ASSESSMENT**

Assessment techniques and strategies; assessment of intelligence, academic skills, aptitude, personality; reliability, validity, test construction and standardisation procedures; the process of administering assessment instruments; interpretation of test results and assessment data; using assessment data in programming and placement.

Courses: ED13, ED11

Credit Points: 12

■ **LEN605 LEARNERS WITH SPECIAL NEEDS: PROGRAMMING FOR INCLUSIVE EDUCATION**

Special educational needs of children in early childhood, school (P-12) and post-secondary settings arising from physical, cognitive, behavioural and socio-cultural differences; developmental screening; diagnosing student functioning in cognitive, social-emotional, self-help and motor skill areas; programming and curriculum decision making for children with special needs; techniques of formative and summative assessment appropriate to student learning needs; strategies for inclusive education; roles and models of support and advisory personnel including in-service strategies.

Courses: ED13, ED11

Credit Points: 12

■ **LEN606 REMEDIATING OF LEARNING DIFFICULTIES**

In-depth review of research of the impact of learning disabilities/difficulties and developmental delay on the learning of literacy from years 1-12 and in post-secondary education; studies in language and its use in learning; assessment and monitoring techniques and approaches to literacy acquisition by students with learning difficulties/disabilities. Draws on developments in areas such as sociolinguistics, psycholinguistics, metacognition and process approaches to literacy and learning within an inclusive education framework.

Courses: ED13, ED11

Credit Points: 12

■ **LEN607 CAREER EDUCATION AND CAREER GUIDANCE**

Focus on career planning as a lifelong process, emphasising that education and guidance programs focus on skill development for repeated decision-making throughout the lifespan; the background and influence of career development theory; the complementary relationship between career education and career guidance. Educator and counsellor skills necessary to enable students to effectively assist career development are included.

Courses: ED13, ED11

Credit Points: 12

■ **LEN608 FOUNDATIONS OF ADULT LEARNING AND DEVELOPMENT**

Provides students with an opportunity to develop an understanding of the complex nature of the adult learning and development process. This is achieved by ex-

posing students to contemporary theories and strategies in adult learning and development and extending their knowledge to the adult and workplace environment. Key concepts such as the motivation, self-directed learning and knowledge construction are addressed. Special emphasis is placed on transferring the theory to practice.
Courses: ED13, ED11 Credit Points: 12

■ LEP413 HUMAN DEVELOPMENT & LEARNING

An analysis of human development through the life span; exploration of how students learn; factors influencing effective learning and teaching.
Courses: ED35, ED36, ED37
Credit Points: 12 Contact Hours: 3 per week

■ LEP523 LEARNERS WITH SPECIAL NEEDS
Special educational needs of school (P-12) and TAFE college learners arising from cognitive, behavioural, socio-cultural and physical disabilities and differences; learners with special educational needs; developing teaching/learning strategies suited to learners' needs. Participation in fieldwork experiences involves the investigation of the resource/support teacher's role in assisting students with special learning needs and collaborating with teachers and administrators.
Courses: ED28, ED61

Credit Points: 12 Contact Hours: 3 per week

■ LEP524 DEVELOPING RELATIONSHIPS & GROUPS

Overview of concepts relating to a model of interpersonal relationships; study of some human relationships concepts such as verbal and non-verbal interpersonal communication, power, influence, authority/control, trust and mistrust, confrontation and constructive resolution of conflict; interviewing and consulting skills; self-concept studies; collaborative teaching and team building; student and teacher stress; assertion-related theory and skills; resource teachers as change agents for inclusive education.

Courses: ED28, ED61

Credit Points: 12 Contact Hours: 3 per week

■ LEP525 REMEDIATING LEARNING DIFFICULTIES

Review of significant learning difficulties among learners in schools (Years 4-12) and post-secondary education in the areas of language/learning demands of the curriculum; composing and comprehending tasks as they relate to curriculum demands; test-wiseness, note taking, organisation, examination stress; application of the content is strongly based on an adjunct model of service delivery.

Courses: ED28, ED61

Credit Points: 12 Contact Hours: 3 per week

■ LEP526 STUDY SKILLS, LITERACY & LEARNING

Review of significant learning difficulties among learners in schools (Years 1-12) and post-secondary education; foundation studies in language and learning; assessment and monitoring of literacy related curriculum tasks; test interpretation and development; related approaches to teaching, informed by principles derived from psycholinguistics, metacognition and process approaches to literacy; adjunct model of service delivery.
Course: ED28

Credit Points: 12 Contact Hours: 3 per week

■ LPN300 RESEARCH DISSERTATION

A research dissertation of approximately 20,000 words. It is expected that the research dissertation relates to one of the core unit areas covered in the Graduate Diploma in Legal Practice and have an applied law orientation. Unit may be undertaken in various loads.

Credit Points:

LPN300 = 24 credit points per semester

LPN301 = 48 credit points per semester

LPN302 = second 24 credit points per semester

LPN303 = 12 credit points per semester

LPN304 = second 12 credit points per semester

■ LPN301 RESEARCH DISSERTATION

A research dissertation of approximately 20,000 words. It is expected that the research dissertation relates to one of the core unit areas covered in the Graduate Diploma in Legal Practice and have an applied law orientation. Unit may be undertaken in various loads.

Credit Points:

LPN300 = 24 credit points per semester

LPN301 = 48 credit points per semester

LPN302 = second 24 credit points per semester

LPN303 = 12 credit points per semester

LPN304 = second 12 credit points per semester

■ LPN302 RESEARCH DISSERTATION

A research dissertation of approximately 20,000 words. It is expected that the research dissertation relates to one of the core unit areas covered in the Graduate Diploma in Legal Practice and have an applied law orientation. Unit may be undertaken in various loads.

Credit Points:

LPN300 = 24 credit points per semester

LPN301 = 48 credit points per semester

LPN302 = second 24 credit points per semester

LPN303 = 12 credit points per semester

LPN304 = second 12 credit points per semester

■ LPN303 RESEARCH DISSERTATION

A research dissertation of approximately 20,000 words. It is expected that the research dissertation relates to one of the core unit areas covered in the Graduate Diploma in Legal Practice and have an applied law orientation. Unit may be undertaken in various loads.

Credit Points:

LPN300 = 24 credit points per semester

LPN301 = 48 credit points per semester

LPN302 = second 24 credit points per semester

LPN303 = 12 credit points per semester

LPN304 = second 12 credit points per semester

■ LPN304 RESEARCH DISSERTATION

A research dissertation of approximately 20,000 words. It is expected that the research dissertation relates to one of the core unit areas covered in the Graduate Diploma in Legal Practice and have an applied law orientation. Unit may be undertaken in various loads.

Credit Points:

LPN300 = 24 credit points per semester

LPN301 = 48 credit points per semester

LPN302 = second 24 credit points per semester

LPN303 = 12 credit points per semester

LPN304 = second 12 credit points per semester

■ LPP001 LEGAL PRACTICE

Course: LP41

Credit Points: 96

■ LSA 123 GENERAL BIOLOGY

This unit provides an overview of taxonomies; the structure and function of eukaryotic and prokaryotic cells; the study of mammalian cells, protozoa, fungi, algae, viruses, helminths and bacteria.

Course: SC15

Credit Points: 8

Contact Hours: 5 per week

■ LSA221 BIOLOGICAL CHEMISTRY

This unit covers theoretical and practical biological chemistry through the topics: biological molecules; enzymology; function and role of co-enzymes; metabolism; electron transport chain and ATP synthesis; role of pH and biological buffers and regulation of metabolism.

Course: SC15 **Prerequisite:** CHA140
Credit Points: 12 **Contact Hours:** 5 per week

■ **LSA 222 LABORATORY INSTRUMENTATION**

This unit extends the laboratory skills necessary for the routine operation of a laboratory with consideration given to the importance of Health and Safety. The unit introduces the basic theory and application of chromatography with particular emphasis on thin-layer, partition-adsorption and column molecular sieve and ion exchange methods as well as electrophoresis.

Course: SC15
Prerequisites: CHA111, CHA145, CHA140
Credit Points: 8 **Contact Hours:** 4 per week

■ **LSA 223 MICROBIOLOGY**

This unit covers the theoretical and practical aspects of the study of microbiology in clinical, environmental and industrial applications. The emphasis is on the identification and control of bacteria.

Course: SC15 **Prerequisite:** LSA223
Credit Points: 8 **Contact Hours:** 3 per week

■ **LSA224 PATHOLOGY**

The application of scientific methods to the study of the general principles of disease processes and selected diseases of the organ systems. Correct understanding and use of pathological terms and concepts.

Course: SC15 **Corequisites:** LSA225
Credit Points: 8 **Contact Hours:** 2 per week

■ **LSA225 HUMAN ANATOMY & PHYSIOLOGY**

This unit introduces anatomy and physiology with emphasis on the relationships between structure and function of the normal human being. Topics studied include: the cell; tissues; skeletal system; articulation and the muscular, lymphatic, respiratory, gastro-intestinal, renal endocrine and reproductive systems.

Course: SC15 **Prerequisite:** LSA224
Credit Points: 12 **Contact Hours:** 5 per week

■ **LSB001 INTRODUCTORY BIOLOGY**

Designed for students who have not studied Senior Biology. It presents an overview of organisms with emphasis on the relationship between structure and basic biological function, including nutrition, excretion, reproduction and inheritance.

Courses: SC30, ED50
Credit Points: 6 **Contact Hours:** 3 per week

■ **LSB118 INTRODUCTION TO LIFE SCIENCE**

An introduction to the study of life processes, with cells and organisms as the central point of reference. Cellular function is described at the tissue and organ levels; the interactions of organisms at the population and community levels are used to explain fundamental concepts of ecology; the diversity of life on Earth is presented in phylogenetic and evolutionary terms; molecular biotechnology is introduced as a tool that assists both the mapping of populations and communities, and the diagnosis of organism malfunction.

Courses: ED50, LS36, SC30
Corequisite: For SC30, LSB001 recommended where Senior Biology has not been undertaken
Credit Points: 12 **Contact Hours:** 6 per week
Incompatible with: LSB122

■ **LSB130 ANATOMY 1**

Structure of the generalised cell, epithelium, connective tissue, bone and cartilage, muscle tissue, nervous tissue, and cardiovascular system; the gross anatomical study of the skeletal, articular, and cardiovascular systems.

Course: OP42
Credit Points: 8 **Contact Hours:** 3 per week

■ **LSB131 ANATOMY**

Basic concepts of anatomy; overview of the structure of cells, body tissues, and body systems as well as aspects of surface anatomy which are relevant to human movement; musculoskeletal systems.

Courses: ED50, HM42, ME46
Credit Points: 12 **Contact Hours:** 6 per week

■ **LSB132 CELL BIOLOGY**

Cells viewed at the molecular level (membranes, proteins and nucleic acids); cells viewed at the microscopic level (membranes, organelles); cellular metabolism; cellular biophysics; cells in division (DNA, genes, chromosomes, protein biosynthesis); cells diversity.

Course: ME46 **Prerequisites:** LSB131, LSB231
Credit Points: 8 **Contact Hours:** 3 per week

■ **LSB141 ANATOMY 1**

A study of human anatomy; of the body as a whole, including a detailed study of the skeletal system.

Course: PH38
Credit Points: 10 **Contact Hours:** 4 per week

■ **LSB142 HUMAN ANATOMY & PHYSIOLOGY**

A grounding in the principles of human anatomy and physiology for students not intending to continue with further study in this area. An introduction to the structure of the cell; organisation of tissues; chemistry of life; major systems that constitute the human body.

Courses: ED50, PH80, PU42, PU44, PU48, PU49
Credit Points: 12 **Contact Hours:** 5 per week

■ **LSB150 HUMAN ANATOMY**

Ultrastructure of the generalised cell. Microscopic and macroscopic anatomy of epithelium, connective tissue, muscular tissues, nervous system, skeletal system, integument, cardiovascular system, lymphatic system, respiratory system, renal system, endocrine system, male and female reproductive systems.

Courses: LS36, SC30
Credit Points: 12 **Contact Hours:** 5 per week

■ **LSB151 HUMAN ANATOMY 1**

Structure of the generalised cell, epithelium, connective tissue, bone and cartilage, muscle tissue, nervous tissue, and cardiovascular system; the gross anatomical study of the skeletal, articular, and cardiovascular systems.

Courses: OP42, PU45
Credit Points: 8 **Contact Hours:** 3 per week

■ **LSB161 BIOLOGY**

An introduction to Biology for students with no previous experience in the discipline. An overview of form and function in animal and plant systems; patters and mechanisms of inheritance; fundamental ecological principles.

Course: OP42
Credit Points: 8 **Contact Hours:** 3 per week

■ **LSB171 ANATOMY & PHYSIOLOGY 1**

An integrated study of anatomy and physiology at the degree level. Emphasis is placed on gaining an appreciation of the relationship between structure and function at the levels of cells, tissues, organs and organ systems, initially the morphology and physiology of cells and tissues is examined. The skeletal, muscular, nervous and integumentary systems.

Course: PU48
Credit Points: 12 **Contact Hours:** 4 per week

■ **LSB182 BIOSCIENCE 1**

This unit develops an understanding of normal human structures in relation to their functions at the cellular, tissue and organ levels. This is an foundation course in

anatomy and physiology for nursing students. Topics covered are: the cell, tissues; systems of the body and their functions, surface anatomy and body topography
Courses: NS40, NS48

Credit Points: 12 Contact Hours: 5 per week

■ LSB191 CLINICAL PHYSIOLOGY & PHARMACOLOGY

The physiological basis of the pathogenesis, clinical features and principles of treatment of the major disorders of body function.

Course: NS40 Prerequisite: LSB281
Credit Points: 8 Contact Hours: 3 per week

Incompatible with:

PNB116 or PNB758 or PNB340 and PNB540 and PNB640 or PNB350 and PNB450 and PNB650

■ LSB221 INTRODUCTION TO PATHOLOGY

Application of scientific methods to the study of disease processes. Correct understanding and use of pathological terms and concepts.

Course: PH38 Prerequisite: LSB141
Credit Points: 8 Contact Hours: 3 per week

■ LSB222 BIOLOGY 2

Macrobiology; populations of organisms, their interactions and association into communities, ecosystems, biomes and the global biosphere are studied in both qualitative and quantitative terms. The flow of energy and matter through the biosphere; the impact of humanity on this process; introduction to simple computer-based models of community ecology and ecosystem processes through practical sessions.

Courses: ED50, SC30
Prerequisites: LSB001 or Senior Biology
Credit Points: 12 Contact Hours: 5 per week

■ LSB228 ANIMAL AND PLANT STRUCTURE AND FUNCTION

Emphasis on how functioning organisms reflect the integration of major biochemical processes. Initially, the structures of body systems are described from the functional viewpoint. Gas exchange, circulatory, reproductive and supportive systems are studied, then aspects of energy flow (photosynthesis/respiration) are considered. Finally, the regulation of organism function via biological positive and negative feedbacks, and hormonal systems, is outlined.

Courses: ED50, SC30
Prerequisites: LSB118 or LSB122
Credit Points: 12 Contact Hours: 5 per week

■ LSB230 ANATOMY 2

An extension of LSB130. An integrated course of lectures and practicals dealing with the macroscopic anatomy of the nervous, digestive, lymphatic, integumentary, respiratory, renal, haemopoietic, endocrine and reproductive systems.

Course: OP42 Prerequisite: LSB130
Credit Points: 8 Contact Hours: 3 per week

■ LSB231 PHYSIOLOGY

The basic concepts of physiology and pharmacology. An overview of the functions of body systems so that students can understand biological disorders and pharmacological strategies which may be used in their treatment.

Courses: ED50, HM42, ME46
Credit Points: 12 Contact Hours: 6 per week

■ LSB238 CELL & MOLECULAR BIOLOGY 1

Introduction at the cell level to essential physiological and metabolic requirements fundamental to life processes. Topics include: the morphology, chemical and biochemical composition of microbial, plant and animal cells; the relationship between metabolism and en-

ergy status of cells; biomembrane function and the organisation of genetic material in cells.

Courses: ED50, LS36, SC30
Prerequisites: CHB142, LSB118
Corequisite: CHB242
Credit Points: 12 Contact Hours: 5 per week
Incompatible with: LSB222

■ LSB241 ANATOMY 2

A course of lectures and practical exercises involving a basic, yet comprehensive, study of the anatomy and physiology of the various body systems.

Course: PH38 Prerequisite: LSB141
Credit Points: 10 Contact Hours: 4 per week

■ LSB250 HUMAN PHYSIOLOGY

Topics examined include: basic mechanisms – cells, fluids, electrolytes; energy metabolism; nutrients; transport mechanisms; blood; communication and control; excitable tissues; control systems – nervous and endocrine; maintenance systems – gastrointestinal; cardiovascular; respiratory; renal; integrated mechanisms – sexual development; pregnancy; parturition; lactation; control of growth; food intake; organic metabolism; body temperature; ECF osmolality and volume; blood pressure and flow; respiration; response to tissue damage; adaptation to stress. This unit includes a practical program of two hours per week.

Course: LS36 Prerequisite: LSB150
Credit Points: 12 Contact Hours: 6 per week

■ LSB260 QUANTITATIVE METHODS IN LIFE SCIENCE 1

Topics include: weighing procedures, pH measurement, ion selective electrodes, spectrophotometers, autotitrators, automatic pipettes and dispensers and volumetric ware; calibration of instruments, correct usage, maintenance and elementary trouble shooting; correct experimental procedure, quality control and statistical analysis.

Course: LS36
Credit Points: 12 Contact Hours: 5 per week

■ LSB261 SYSTEMATIC ANATOMY

An extension of LSB151 A unit dealing with the microscopic and macroscopic anatomy of the nervous, digestive, lymphatic, integumentary, respiratory, renal, endocrine, muscular and reproductive systems and the basic macroscopic anatomy of the lower limb.

Course: PU45 Prerequisite: LSB161
Credit Points: 8 Contact Hours: 3 per week

■ LSB282 BIOSCIENCE 2

This unit covers the introduction to diseases, infections and treatments; the body defence systems and control of infection and considers in depth the respiratory and cardiovascular systems and diseases which affect these systems.

Courses: NS40, NS48 Prerequisite: LSB182
Credit Points: 12 Contact Hours: 5 per week

■ LSB300 MICROBIOLOGY 1

An introductory core unit in microbiology dealing with aspects of microbial diversity, ecology, classification and taxonomy, structure and function, nutrition and metabolism, growth and reproduction, genetics, control and host-microbe interactions.

Course: LS36 Prerequisites: LSB238, CHB242
Credit Points: 8 Contact Hours: 4 per week

■ LSB301 MICROBIOLOGY 1

Explores the diversity of microorganisms in public health microbiology providing a basic foundation in microbial classification, structure and function, reproduction, ecology; the economic, environmental and public health significance of microorganisms; groups examined include:

viruses, bacteria, yeasts and fungi, algae, protozoa, helminths and arthropod vectors.

Courses: PU42, PU44

Credit Points: 8 **Contact Hours:** 3 per week

■ **LSB302 ANIMAL BIOLOGY**

Together with LSB402, this unit provides the foundation in animal biology that is essential for later specialist units in population studies and aquaculture. It deals with non-chordates and covers the following topics: taxonomy, systematics, nomenclature, classification, ultrastructure, life histories, structure and physiology and evolutionary trends.

Courses: ED50, SC30

Prerequisite: LSB122

Credit Points: 12 **Contact Hours:** 5 per week

■ **LSB305 BIOCHEMISTRY**

The structures and functions of proteins, carbohydrates, lipids and nucleic acids, basic enzymology, mechanisms of cellular energy production and the role of ATP; the metabolism of carbohydrates, lipids and amino acids and the fundamentals of protein biosynthesis and molecular biology.

Course: PU49

Prerequisite: CHB259

Credit Points: 12 **Contact Hours:** 5 per week

■ **LSB308 BIOCHEMISTRY 1**

The structure and function of organic macromolecules: the basic biochemistry of amino acids, peptides and proteins, carbohydrates and nucleic acids; basic enzymology; energy production in cells: high energy molecules, electron transport and oxidative phosphorylation; thermodynamics and bioenergetics.

Courses: ED30, LS36, SC30

Prerequisites: CHB242, LSB238

Credit Points: 12 **Contact Hours:** 5 per week

■ **LSB318 BIOCHEMICAL METHODOLOGY**

The subject covers the methodology of modern biochemical measurement and separation techniques, with practical exercises in the various procedures and the use of laboratory instruments. Topics include pH and buffers, centrifugation, spectrophotometry and fluorimetry, various forms of chromatography including column, thin layer, affinity and HPLC procedures, electrophoresis and associated staining and identification techniques, ligand binding assays and applications of radioisotopes.

Course: SC30 **Prerequisites:** LSB238, CHB242

Corequisite: LSB308

Credit Points: 12 **Contact Hours:** 5 per week

■ **LSB320 QUANTITATIVE METHODS IN LIFE SCIENCE 2**

Topics include: immunoassay, electrophoresis and isoelectric focussing; chromatography including gel filtration, affinity chromatography, ion exchange and aspects of high performance liquid chromatography; and enzymic analysis. Emphasis is placed on correct experimental procedures, hypothesis testing and the statistical interpretation of data, and quality control.

Course: LS36

Prerequisite: LSB260

Credit Points: 8 **Contact Hours:** 4 per week

■ **LSB321 SYSTEMATIC PATHOLOGY**

Diseases of the organ systems: cardiovascular, respiratory, alimentary, urogenital, nervous musculoskeletal, endocrine, haematologic and skin.

Course: PH38

Prerequisite: LSB221

Credit Points: 8 **Contact Hours:** 3 per week

■ **LSB328 MICROBIOLOGY 1**

An introductory core unit in microbiology dealing with aspects of microbial diversity, ecology, classification and taxonomy, structure and function, nutrition and metabolism, growth and reproduction, genetics, control and host-microbe interactions.

Course: SC30

Prerequisites: CHB242, LSB238

Credit Points: 12

Contact Hours: 5 per week

■ **LSB331 ADVANCED ANATOMY**

Gross anatomy of the lower limb; anatomical knowledge fundamental to the understanding of the functional and applied aspects of podiatric anatomy; major topics: osteology, myology, arthrology, angiology and neurology.

Course: PU45

Corequisites: LSB261, PNB302

Credit Points: 8 **Contact Hours:** 6 per week

■ **LSB338 CELL & MOLECULAR BIOLOGY 2**

A continuation and expansion of topics begun in LSB238, with an emphasis on integrated approaches to understanding life processes. Areas covered include specialised aspects of cell membranes, cell communication and recognition, specialised cell structures in bacteria, plants and animals, cell specialisation and differentiation of cell types, cell motility, cell cycle regulation and cancer.

Course: SC30

Prerequisites: LSB238

Corequisite: LSB308

Credit Points: 12 **Contact Hours:** 5 per week

■ **LSB343 IMAGING ANATOMY 1**

A unit dealing with the regional anatomy of the head, neck, upper limb, lower limb, and vertical column and the anatomy of the structures of the above regions which are visualised by medical imaging modalities.

Courses: PH38, PH90

Prerequisite: LSB241

Credit Points: 8 **Contact Hours:** 4 per week

■ **LSB348 GENETICS**

An introductory unit in basic genetics. Topics include: the molecular basis of genetics, Mendelian genetics, nuclear and cytoplasmic inheritance, genotype-phenotype interactions, quantitative and behavioural genetics, and basic evolutionary theory.

Courses: ED50, SC30, LS36

Prerequisite: LSB118 or LSB122

Credit Points: 12 **Contact Hours:** 5 per week

■ **LSB350 GENERAL & SYSTEMATIC PATHOLOGY**

Principles of the study of disease and dealing with the causes and nature of circulation disorders, degenerative processes, metabolic disorders, disturbances of development and growth, inflammation, infections and infestations, regeneration and repair and neoplasia. Includes the application of general pathology to the study of diseases of the organ systems.

Course: LS36

Prerequisite: LSB150

Credit Points: 8 **Contact Hours:** 2 per week

■ **LSB352 POPULATION ECOLOGY**

A broad theoretical background in the major concepts of plant and animal ecology. Topics include: ecology of single populations, life history and demography, interactions within and between populations, population regulation, management, behavioural ecology, energetics and biogeography.

Course: SC30

Prerequisite: LSB118 or LSB122

Corequisite: LSB362

Credit Points: 12 **Contact Hours:** 5 per week

■ **LSB358 PHYSIOLOGY 1**

A course of lectures and practicals on functional organisation of the human body including detailed studies of: excitable tissues, neural integration, muscle, sensory and motor systems; the gastrointestinal system, digestion, secretion, adsorption and metabolism; temperature regulation and the endocrine system.

Course: SC30

Prerequisite: LSB238

Credit Points: 12 **Contact Hours:** 5 per week

■ **LSB361 FUNDAMENTALS OF MEDICINE**

The theoretical basis for an understanding of the proc-

ess of medical care. Students must understand the nature of disease processes and the clinician's response to them in order to: design appropriate and efficient health information services for all types of health care facilities; communicate effectively with other health professionals involved in the care of patients; assist in research and quality assurance programs in the health services. A review of the important and frequently encountered diseases and disorders of the major body systems.

Course: PU48 **Prerequisite:** LSB271
Credit Points: 12 **Contact Hours:** 3 per week

■ **LSB362 EXPERIMENTAL DESIGN**

Emphasises practical considerations of field and laboratory-based experimentation in life science, and provides experience in problem assessment, definition, formulation of testable hypotheses and experimental design.

Course: SC30 **Prerequisite:** MAB237 or MAB347
Credit Points: 12 **Contact Hours:** 5 per week

■ **LSB370 DISEASE PROCESSES**

Principles of the study of disease and dealing with the causes and nature of circulation disorders, degenerative processes, metabolic and nutritional disorders, disturbances of development and growth, inflammation, infections and infestations, regeneration and repair, and neoplasia. Includes: the applications of general pathology to the study of diseases of the heart and circulatory system, digestive system, respiratory system, urogenital system, endocrine system, nervous system, haematologic system and skin.

Courses: OP42 **Prerequisites:** LSB151 or LSB130
Corequisite: LSB306
Credit Points: 4 **Contact Hours:** 2 per week

■ **LSB371 BIOCHEMISTRY 4**

The structures and functions of proteins, carbohydrates, lipids and nucleic acids, basic enzymology, mechanisms of cellular energy production and the role of ATP; the metabolism of carbohydrates, lipids and amino acids and the fundamentals of protein biosynthesis and molecular biology.

Courses: OP42, PU45 **Prerequisite:** CHB242
Credit Points: 8 **Contact Hours:** 4 per week

■ **LSB400 MICROBIOLOGY 2**

An extension of the core unit in microbiology dealing with further aspects of microbial diversity, ecology, classification and taxonomy, action of and resistance to antimicrobial chemicals, host-microbe-environment relationships, foodborne pathogens and spoilage, practical applications of immunology, and examples of the industrial importance of microbial biotechnology.

Course: LS36 **Prerequisite:** LSB300
Credit Points: 8 **Contact Hours:** 4 per week

■ **LSB401 MICROBIOLOGY**

An introductory core unit of lectures and practical exercises in microbiology dealing with cytology, nutrition, genetics, control of microbial populations, and principles of taxonomy.

Course: PU45 **Prerequisite:** CHB001
Credit Points: 8 **Contact Hours:** 3 per week

■ **LSB405 MICROBIOLOGY**

Introduction to different classes of microorganisms; basic characteristics of bacteria and bacterial nutrition; water microbiology; food preservation; food spoilage; foodborne disease; food hygiene; microbial fermentation of foods.

Course: PU49 **Prerequisite:** CHB001
Corequisite: CHB259
Credit Points: 12 **Contact Hours:** 5 per week

■ **LSB408 BIOCHEMISTRY 2**

Topics include: aspects of carbohydrate metabolism in

mammals; the chemistry and metabolism of lipids and amino acids; the chemistry and function of porphyrins; metabolic integration.

Courses: ED30, SC30 **Prerequisite:** LSB308
Credit Points: 12 **Contact Hours:** 5 per week

■ **LSB410 BIOCHEMISTRY 2**

Topics include: aspects of carbohydrate metabolism in mammals; the chemistry and metabolism of lipids and amino acids; the chemistry and function of porphyrins; metabolic integration.

Course: LS36 **Prerequisite:** LSB308
Credit Points: 8 **Contact Hours:** 5 per week

■ **LSB421 IMAGING PATHOLOGY**

The appearances of pathology on medical images with particular emphasis on the radiographic image.

Course: PH38, PH90 **Prerequisite:** LSB321
Credit Points: 4 **Contact Hours:** 2 per week

■ **LSB428 MICROBIOLOGY 2**

An extension of the core unit in microbiology dealing with further aspects of microbial diversity, ecology, classification and taxonomy, action of and resistance to antimicrobial chemicals, host-microbe-environment relationships, foodborne pathogens and spoilage, practical applications of immunology, and examples of the industrial importance of microbial biotechnology.

Course: SC30 **Prerequisites:** LSB328
Credit Points: 12 **Contact Hours:** 5 per week

■ **LSB430 IMMUNOLOGY 1**

The mechanisms of the immune process including the nature of antigen, antibodies, antigen-antibody reactions, antibody formation, control of the humoral and cell-mediated immune responses, hypersensitivity and allergy, immunisation of humans against infections

Course: LS36 **Prerequisites:** LSB250, LSB300
Credit Points: 8 **Contact Hours:** 4 per week

■ **LSB431 MICROBIOLOGY 2**

Continuation of LSB301. Topics covered include: microbial growth and measurement; laboratory and field analysis; microbial control methods; food hygiene; water quality; principles of disease and epidemiology.

Courses: PU42, PU44 **Prerequisite:** LSB301
Credit Points: 8 **Contact Hours:** 3 per week

■ **LSB437 MOLECULAR BIOLOGY**

An introductory unit of lectures and practical/tutorial classes introducing the structure and biochemistry of the nucleic acids and methodologies for their analysis. Topics include: genome organisation and replication in bacteriophages, plasmids, bacteria and eukaryotes; the enzymes involved in replication of DNA and RNA; nucleic acid isolation and purification; and the mechanisms of transcription and translation of the genetic code in vivo.

Course: LS36 **Prerequisite:** LSB308
Corequisite: LSB408
Credit Points: 8 **Contact Hours:** 4 per week

■ **LSB438 IMMUNOLOGY 1**

The mechanisms of the immune process including the nature of antigen, antibodies, antigen-antibody reactions, antibody formation, control of the humoral and cell-mediated immune responses, hypersensitivity and allergy, immunisation of humans against infections

Course: SC30 **Prerequisites:** LSB328, LSB358
Credit Points: 12 **Contact Hours:** 5 per week

■ **LSB443 ANATOMY IMAGING 2**

A unit dealing with the regional anatomy of the thorax and abdomen regions and the anatomy of the structures of the above regions which are visualised by medical imaging modalities.

Courses: PH38, PH90 **Prerequisites:** LSB241
Credit Points: 8 **Contact Hours:** 4 per week

■ **LSB448 PLANT BIOLOGY**

Plant biology; morphology, anatomy reproduction, taxonomy and identification in the plant kingdom; includes a small practical project; emphasis on species of economic value; a basis for further study in plant tissue culture, physiology and ecology.

Courses: ED50, SC30
Prerequisite: LSB122 or LSB228
Credit Points: 12 **Contact Hours:** 5 per week

■ **LSB450 HAEMATOLOGY 1**

This is the introductory unit in haematology. Topics discussed include: blood collection; preparation, staining and examination of a blood film; haematology profile using manual and automated procedures; ESR; reticulocyte count; Heinz body detection; quality control procedures; overview of abnormal erythrocyte and leucocyte abnormalities; screening tests for haemostasis.

Course: LS36
Prerequisites: LSB250, LSB308, LSB350
Credit Points: 8 **Contact Hours:** 4 per week

■ **LSB451 HUMAN PHYSIOLOGY**

A course of lectures and practicals. The lectures are the same as LSB240 and LSB340. Presented as a one-semester program.

Courses: OP42, PU45
Prerequisites: LSB351 or LSB261
Credit Points: 12 **Contact Hours:** 7 per week

■ **LSB452 MARINE STUDIES**

Marine ecosystems, their importance to all life along the coastal areas and to people's livelihood; management and conservation of the sea; appreciation of its infinite value to humanity's changing lifestyle.

Course: ED50 **Prerequisite:** LSB122
Credit Points: 12 **Contact Hours:** 5 per week

■ **LSB458 PHYSIOLOGY 2**

A companion unit to LSB358 comprising lectures and practicals on blood, haemostasis, cardiac function, the vascular system and maintenance of blood pressure, circulatory and respiratory adjustments to physiological stress, pulmonary and tissue respiration, blood gas carriage, excretion, water and electrolyte balance.

Course: SC30 **Prerequisite:** LSB238
Credit Points: 12 **Contact Hours:** 5 per week

■ **LSB460 HISTOPATHOLOGY 1**

An introductory subject presenting methods of preparing tissue samples for observation by various forms of light and electron microscopy. Topics include: laboratory safety; fixation, processing and embedding of samples; decalcification; microtomy; general principles of staining, routine staining methods; use of microwaves; immunohistochemistry and microscopy techniques.

Course: LS36 **Prerequisites:** CHB242, LSB150
Credit Points: 8 **Contact Hours:** 4 per week

■ **LSB461 FUNDAMENTALS OF MEDICINE 2**

Continues the study of the process of medical care begun in LSB361. The roles and functions of allied health professions, and of technological services in the diagnosis and treatment of disease.

Course: PU48 **Prerequisite:** LSB361
Credit Points: 12 **Contact Hours:** 3 per week

■ **LSB468 MOLECULAR BIOLOGY**

An introductory subject of lectures and practical/tutorial sessions introducing the structure and biochemistry of the nucleic acids and methodologies for their analysis. Lecture topics include genome organisation and replication in bacteriophages, plasmids, bacteria and

eukaryotes; the enzymes involved in the replication of DNA and RNA; nucleic acid isolation, purification and analysis; and the mechanisms of transcription and translation of the genetic code in vivo.

Course: SC30 **Prerequisites:** LSB308, LSB338
Corequisite: LSB408
Credit Points: 12 **Contact Hours:** 5 per week

■ **LSB470 DISEASE PROCESSES 4**

See LSB370.
Course: PU45
Credit Points: 8 **Contact Hours:** 4 per week

■ **LSB478 ANIMAL PHYSIOLOGY**

An introduction to comparative animal physiology. Emphasis is on the physiological ecology of whole animals, their functioning and survival in natural environments.

Courses: ED50, SC30
Prerequisite: LSB122 or LSB228
Credit Points: 12 **Contact Hours:** 5 per week

■ **LSB480 PROFESSIONAL PRACTICE**

This unit introduces students to the workplace, i.e. a pathology laboratory. The student undertakes a two-four week work experience program in a city or country pathology laboratory during the summer vacation between semesters 4 and 5 of the full-time course and between semesters 8 and 12 of the part-time course.

Course: LS36
Corequisites: LSB400, LSB410, LSB430, LSB450, LSB460

■ **LSB488 PLANT PHYSIOLOGY 1**

Whole plant physiology and the functional systems of plants. An important unit for students continuing their studies in the plant biotechnology and ecology areas.

Courses: ED50, SC30
Prerequisite: LSB222 or LSB228
Credit Points: 12 **Contact Hours:** 5 per week

■ **LSB491 MICROBIOLOGY 3**

An introductory core unit of microbiology for students of optometry: with cytology, nutrition, genetics, control of microbial populations and principles of taxonomy in relation to optometry.

Course: OP42
Credit Points: 6 **Contact Hours:** 3 per week

■ **LSB498 ECOLOGICAL METHODS**

The theory and practice of methods to determine and measure important ecological parameters and characteristics. These methods are essential tools for the study of biological populations and communities. Content includes estimation of population size, determination of dispersion patterns, detecting competition, and vegetation classification and mapping.

Course: SC30 **Prerequisites:** LSB352, LSB362
Credit Points: 12 **Contact Hours:** 5 per week

■ **LSB500 MICROBIOLOGY 5**

Parasitology: the laboratory diagnosis of parasitic disease in humans. Clinical virology: nature of viruses and propagation, cell culture of viruses, detection and diagnostic methods and viral infections in humans and animals. Clinical mycology: classification of mycoses, collection of material for culture and characterisation of fungi responsible for superficial, cutaneous, subcutaneous and systemic infections in humans.

Course: LS36 **Prerequisite:** LSB400
Credit Points: 16 **Contact Hours:** 7 per week

■ **LSB502 PROJECTS 1**

Develops the student's capacity for managing their own work. Projects emphasise specific investigatory skills in reviewing, collating, interpreting and presenting data;

contribution to a seminar is usually required. Projects, supervised by staff members, are graded individually. The Head of School coordinates assessment, and may request external assessment. Projects are to be selected by Week 12 of the fourth semester of the course. There are a number of compulsory field trips. This unit leads into LSB602.

Course: SC30 **Prerequisite:** LSB362
Credit Points: 12 **Contact Hours:** 5 per week

■ LSB508 BIOCHEMISTRY 5

The catabolic and anabolic pathways for the major macromolecules in mammalian systems; non-mammalian metabolism; concepts in bioenergetics and thermodynamics in the context of cellular metabolism; integration of metabolism including production of mixed conjugates of biological significance such as amino-sugars and lipopolysaccharides, hormone action and regulation.

Course: SC30 **Prerequisite:** LSB408
Credit Points: 12 **Contact Hours:** 5 per week

■ LSB520 CLINICAL BIOCHEMISTRY 5

Introduces the study of chemical aspects of human life in health and illness and discusses the application of chemical laboratory methods to diagnosis, control of treatment and prevention of disease. Topics include: kidney, pancreas, liver and gastric functions, the metabolism of lipids, carbohydrates and proteins.

Courses: LS36, SC30
Prerequisites: LSB408, LSB310, LSB340
Credit Points: 8 **Contact Hours:** 4 per week

■ LSB522 POPULATION MANAGEMENT

The principles of biological population management; natural populations and three forms of management; pest control, harvesting and conservation. Field trips and computer simulations are used to investigate management methods.

Course: SC30 **Prerequisite:** LSB352
Credit Points: 12 **Contact Hours:** 5 per week

■ LSB527 ANALYTICAL BIOCHEMISTRY

A companion to unit LSB508 extending the material of LSB318 into biochemistry analysis. Topics include: enzyme-based analyses; advanced analysis using isotopes; immunoassays and the major biomolecules.

Course: SC30
Prerequisites: LSB318, LSB408 **Corequisite:** LSB508
Credit Points: 12 **Contact Hours:** 5 per week

■ LSB528 MICROBIAL PHYSIOLOGY & METABOLISM

The composition, organisation, structure and activity of the microbial cell: bacteria, yeasts and moulds. Topics include: light microscopy and staining methods; cell structure; enrichment, isolation and growth of cultures; the kinetics of growth; biosynthesis of cellular materials; regulation of metabolism; microbial genetics; sporogenesis and germination.

Course: SC30 **Prerequisite:** LSB428
Credit Points: 12 **Contact Hours:** 5 per week

■ LSB530 IMMUNOLOGY 5

Builds on the basic understanding provided in LSB430 to provide an understanding of the genetic control of antibody diversity, the function of antibody and complement at a molecular level, cell interactions in the immune response and immunological process in resistance to and recovery from infection. Practical classes place emphasis on the competent performance of immunological procedures rather than just a demonstration of immunological principles.

Course: LS36
Prerequisites: LSB430, LSB408, LSB400
Credit Points: 8 **Contact Hours:** 4 per week

■ LSB532 POPULATION GENETICS

An extension of LSB348 Genetics. Topics include: the genetic structure of populations and processes of evolutionary change; natural selection, inbreeding and co-adaptation; species and speciation theory; ecological genetics and the genetics of behaviour. Students may be required to undertake semester-long project topics on practical or theoretical problems.

Course: SC30 **Prerequisite:** LSB432
Credit Points: 12 **Contact Hours:** 3 per week

■ LSB537 GENETIC ENGINEERING

The development of concepts and skills in the recombinant DNA technologies used in genetic engineering. Topics include: the enzymes, vectors and host cells for gene isolation and cloning; strategies and procedures for cellular transformation and gene library construction; nucleic acid hybridisation techniques; methods for the screening for recombinant clones using radioactive and non-radioactively labelled gene probes.

Courses: LS70, LS85, SC30, SC60
Prerequisite: LSB442
Credit Points: 12 **Contact Hours:** 5 per week

■ LSB542 PLANT TISSUE CULTURE 2

Cellular and biochemical aspects of plant growth are integrated with standard plant tissue culture practice in this unit. Theories and techniques of modern plant biotechnology are introduced, including cytogenetics, protoplast isolation and the unusual carbohydrate metabolism of plants in tissue culture.

Course: SC30 **Prerequisite:** LSB442
Credit Points: 12 **Contact Hours:** 5 per week

■ LSB550 HAEMATOLOGY 5

The first of two units in which the student is introduced to the diseases of the blood: cause, laboratory investigation, prognosis, principles of treatment and laboratory monitoring of treatment. The blood disorders discussed include: anaemias of defective haem and porphyrin synthesis, anaemias caused by abnormalities in globin biosynthesis, macrocytic anaemias, hypoproliferative anaemias, anaemia of chronic renal failure, liver disease, haemolytic anaemias.

Course: LS36
Prerequisites: LSB310, LSB408, LSB450
Credit Points: 8 **Contact Hours:** 4 per week

■ LSB552 AQUACULTURE 1

Methods and techniques associated with the commercial production of aquatic animal species in hatcheries and on aquafarms. Topics include: water quality measurement and management; intensive production of food organisms; induction of maturation and spawning; nursing and rearing larvae and fry; feeding; diagnosis and treatment of health problems; handling and husbandry.

Course: SC30 **Prerequisite:** LSB302
Credit Points: 12 **Contact Hours:** 5 per week

■ LSB558 APPLIED PHYSIOLOGY

An extension of prior knowledge of physiological processes which occur in a specific range of cardiovascular, renal and neurological functions; basic nutritional concepts and factors affecting nutrient requirements.

Courses: PU62, SC30, SC60 **Prerequisite:** LSB458
Credit Points: 12 **Contact Hours:** 5 per week

■ LSB560 HISTOPATHOLOGY 5

A detailed study of techniques used in routine histopathology including methods for immunohistochemistry and transmission electron microscopy. Emphasis is placed on the application and relevance of methods to particular diagnostic areas.

Course: LS36 **Prerequisites:** LSB408, LSB460
Credit Points: 8 **Contact Hours:** 4 per week

■ LSB568 ELECTRON MICROSCOPY

A theoretical and practical background to the operation and use of scanning and transmission electron microscopes in biological, materials and forensic science; basic principles of specimen preparation are included with emphasis on methods complementary to biology, microbiology and molecular biology. Analytical capabilities of electron beam instruments.

Course: ED50, SC30

Credit Points: 12 Contact Hours: 5 per week

■ LSB578 VIROLOGY

Lectures and practical classes designed to introduce students to the basic concepts of virology. A range of viruses and virus diseases are examined and topics include: virus morphology and composition, taxonomy and classification, replication, purification, diagnosis and assay, transmission and control.

Course: SC30

Prerequisite: LSB428

Credit Points: 12 Contact Hours: 5 per week

■ LSB600 CLINICAL BACTERIOLOGY 6

A study of clinical bacteriology, dealing with the characteristics, isolation and identification of bacteria implicated in human disease, the collection and examination of clinical specimens, the initial use of computerised data bases in bacterial identification and antibiotic sensitivity tests on laboratory isolates, the interpretation and clear reporting of results.

Course: LS36

Prerequisite: LSB400

Credit Points: 16 Contact Hours: 7 per week

■ LSB602 PROJECTS 2

This elective unit may be undertaken by students who have taken LSB984 and who have the Strand Coordinator's permission to continue project work. The student either continues a project undertaken in LSB502 or becomes involved in one or more additional projects aimed at developing to a greater depth aspects of the unit matter of experimental units previously completed, such projects being established for either individuals or groups. Assessment is conducted as for LSB502. There are a number of excursions.

Course: SC30

Credit Points: 12 Contact Hours: 5 per week

■ LSB607 BIOCHEMICAL SEPARATIONS

An advanced course of lectures and a comprehensive project designed to integrate a number of specialist biochemical procedures including centrifugation, liquid chromatography, electrophoresis, spectrophotometry and peptide mapping. Students participate in group projects where they are required to design and execute their own experimental protocols for the purification and analysis of selected proteins.

Course: SC30, LS70

Prerequisites: LSB308, LSB318

Credit Points: 12 Contact Hours: 5 per week

■ LSB608 BIOCHEMISTRY 6

Advanced studies in protein biochemistry, including structure, analysis and evolution of proteins, sequencing, synthesis, structure predictions; applications in the areas of enzymology and active site chemistry; macromolecular assemblies such as muscle.

Course: SC30

Prerequisites: LSB418, LSB308

Credit Points: 12 Contact Hours: 5 per week

■ LSB612 AQUACULTURE 2

The theoretical and applied aspects of warm-water aquaculture. Topics include: design and operation of production facilities; water quality requirements and management; biology of commercially important species; reproduction and its control; nutrition, feeding and

growth; diseases and their control; production improvement; polyculture; case studies.

Course: SC30

Prerequisite: LSB372

Credit Points: 12 Contact Hours: 5 per week

■ LSB620 CLINICAL BIOCHEMISTRY 6

Study of clinical biochemistry with emphasis on enzymes, electrolytes, blood gases, drugs, vitamins, functions of the thyroid and adrenal gland, auto-analyses, quality control and steroid metabolism.

Courses: LS36, SC30

Prerequisite: LSB520

Credit Points: 8 Contact Hours: 4 per week

■ LSB622 CASE STUDIES

Application of skills and techniques to a current research problem in biology. Skills in problem appraisal, experimental design and data handling and processing are developed, with field work.

Course: SC30

Prerequisite: LSB412

Credit Points: 12 Contact Hours: 5 per week

■ LSB628 APPLIED MICROBIOLOGY

Aspects of the microbiology of foods, water and agriculture. Topics include: sampling plans, food-borne infections, food hygiene, food standards and the law, food ecology and its relationship to food spoilage and preservation, industrial fermentations, NATA requirements for laboratory registration and methods of microbiological examination of foods, plant, soil, and water microbiology.

Course: SC30

Prerequisite: LSB428

Credit Points: 12 Contact Hours: 5 per week

■ LSB630 IMMUNOHAEMATOLOGY 6

Designed to supply the competence in theoretical and practical blood transfusion required of a scientist working in a hospital blood bank. The understanding of immunology gained in LSB430 and LSB530 is applied to the area of blood banking. Topics include: blood group systems, compatibility testing, antibody identification, antenatal serology, clinical use of blood and blood products and quality control.

Course: LS36

Prerequisite: LSB530

Credit Points: 8 Contact Hours: 4 per week

■ LSB632 PLANT PHYSIOLOGY 2

The sequence of biochemical and physiological events during the life history of a plant. Topics include: starch and oil mobilisation during seed germination, biosynthesis of cell membranes, cell pigments (carotenoids, chlorophylls), and plant cell walls; photosynthetic assimilation of nitrogen and sulphur (overview of biosynthesis of all amino acids); biosynthesis of so-called secondary plant products, e.g. terpenoids, flavonoids, and the lignin component of wood; biosynthesis of starch and oils in new seeds. Laboratory classes emphasise techniques of value to plant biochemical research.

Course: SC30

Credit Points: 12 Contact Hours: 5 per week

■ LSB637 MOLECULAR GENETICS

Polymerase Chain Reaction and associated technologies; chromosome separation; walking and jumping; genetic recombination, mutagenesis and evolution; advanced techniques including DNA foot-printing; nucleic acid sequencing and reverse genetics.

Courses: LS70, LS80, LS85, SC30

Prerequisite: LSB537

Credit Points: 12 Contact Hours: 5 per week

■ LSB648 MICROBIAL TECHNOLOGY

An advanced course of lectures and practical sessions dealing with the industrial use of microorganisms. Topics include: screening and strain development; large scale fermentation; product recovery; biochemical engineering; microbial fermentation of food products; primary

and secondary metabolites of industrial importance; single cell protein; microbial transformations; biodeterioration and bioleaching.

Course: SC30 **Prerequisite:** LSB528
Credit Points: 12 **Contact Hours:** 5 per week

■ LSB650 HAEMATOLOGY 6

Continues the study of blood diseases. Topics include: inherited and acquired coagulation factor disorders, fibrinolysis, thrombosis, anticoagulant therapy platelet disorders, cellular kinetics, growth factors, non-malignant and malignant leucocyte disorders, paediatric and veterinary haematology.

Course: LS36 **Prerequisite:** LSB550
Credit Points: 8 **Contact Hours:** 4 per week

■ LSB652 BIOLOGICAL RESOURCES

Aspects of ecosystem management related to naturally occurring materials and their supply to the human economy. Limitations on specific exploitation of natural genetic (species), soil and energy resources are identified and linked with relevant aspects of land tenure, administration and law; threats to biological resources due to pollutants. Strategies leading to sustained yield and conservation are contrasted with those resulting in resource degradation.

Course: SC30 **Prerequisite:** LSB550
Credit Points: 12 **Contact Hours:** 5 per week

■ LSB658 CLINICAL PHYSIOLOGY

The physiological basis and pathogenesis; clinical features and treatment of the major disorders of the cardiovascular, respiratory, haematological, renal, gastrointestinal, nervous and endocrine systems.

Course: SC30 **Prerequisites:** LSB358, LSB458
Credit Points: 12 **Contact Hours:** 5 per week

■ LSB660 HISTOPATHOLOGY 6

Reviews recent advances in diagnostic histopathology and introduces advanced and specialised methods including scanning electron microscopy and X-ray microanalysis. Techniques for diagnostic cytology concentrating on specimen preparation and the microscopic detection of cancerous and other abnormal cells in human tissues and body fluids.

Course: LS36 **Prerequisite:** LSB560
Credit Points: 8 **Contact Hours:** 4 per week

■ LSB722 RESEARCH STRATEGIES

A series of seminars presented by staff of the Faculties of Health and Science and other research scientists on their area of expertise. A series of tutorials and lectures on such topics as library searches, oral communications, written communications and ethics. A written assignment in the areas of microbiology, biochemistry and biotechnology. A seminar presented by the student covering the background literature relevant to the student's research project.

Course: SC60 **Credit Points:** 16

■ LSB723 READINGS IN LIFE SCIENCE 1

The preparation of a literature review of direct and associated relevance to the Honours research project under the guidance of the supervisor(s). Includes an in-depth computer search, the presentation of a written paper demonstrating a considerable knowledge, understanding and appreciation of the literature as well as a critical appraisal of future research requirements.

Course: SC60 **Credit Points:** 16

■ LSB725 PROJECT

All students undertaking Honours in biotechnology, biochemistry or microbiology are required to select and undertake, in consultation with a supervisor, a suitable project.

Course: SC60 **Credit Points:** 10

■ LSB734 ANALYTICAL ELECTRON MICROSCOPY

An advanced course in electron microscopy with emphasis on the applications of labelling and analytical techniques. Methods covered include immunocytochemistry, in situ hybridisation, energy and wavelength dispersive X-ray analysis, electron energy loss spectroscopy and image analysis. Specialised preparation methods necessary for use of these techniques in SEM, TEM and STEM instruments are discussed, together with their advantages and limitations. Applications are drawn from the biological, materials and forensic science areas.

Course: SC60 **Credit Points:** 12 **Contact Hours:** 5 per week

■ LSB801 ADVANCED PLANT PHYSIOLOGY & BIOCHEMISTRY

Plant physiology and biochemistry of current research interest are covered, expanding upon material in the third-year Plant Biochemistry unit. Students select from a reading list and present seminars.

Course: LS60 **Credit Points:** 12 **Contact Hours:** 5 per week

■ LSB802 IMMUNOLOGY 5

This unit builds on the basic understanding provided in LSB430 and LSB438 and provides an understanding of the genetic control of antibody diversity, the function of antibody and complement at a molecular level, cell interactions in the immune response and immunological process in resistance and recovery from infection. Students are also required to demonstrate basic information retrieval skills in areas of immunology and to perform a range of computer-based immunology tasks.

Courses: SC60, LS70
Prerequisites: LSB430, LSB438
Credit Points: 12 **Contact Hours:** 5 per week

■ LSB804 ADVANCED POPULATION BIOLOGY

An extended treatment of major questions in population biology. Students are expected to develop a detailed understanding of population processes and aspects of evolutionary theory at both the individual and population level. The unit includes theoretical core material, group tutorials and individual programs designed around student needs. Students are required to present a review paper and a formal seminar on an assigned topic.

Course: SC60 **Credit Points:** 12 **Contact Hours:** 5 per week

■ LSB825 PROJECT

The preparation of a paper reporting the methods and results of investigations in the Honours Research Projects. The paper also includes an introduction, analysis and discussion of the project in a style and length deemed to be appropriate by the Head of School. Students should relate this project work to published work already undertaken in the field.

Course: SC60 **Credit Points:** 48

■ LSN009 READINGS IN LIFE SCIENCE 4

A review of literature in an area determined in consultation with the supervisor. The area can be associated with the research project topic and can be broadly or narrowly focused but should not include any significant material covered in LSN013. The review should cover the background to the area as well as recent advances and identify deficiencies and possible future research directions. The review should be a critical analysis of the area. Reviews should normally be approximately 5 000 words.

Courses: IF49, SC80
Credit Points: 12 **Contact Hours:** 1 per week

■ LSN010 READINGS IN LIFE SCIENCE 5

See LSN009.

Courses: IF49, SC80

Credit Points: 12 Contact Hours: 1 per week

■ LSN011 RESEARCH SEMINARS IN LIFE SCIENCE 1

A 30-minute public seminar to include a presentation and question period addressing the background to the proposed research topic in the postgraduate degree and outlining the proposed directions of the research program. The seminar should normally be presented within 12 months (full-time) or 24 months (part-time) of commencement of the postgraduate program.

Courses: IF49, SC80 Credit Points: 6

■ LSN012 RESEARCH SEMINARS IN LIFE SCIENCE 2

A 30-minute public seminar to include a presentation and question period outlining the progress made in the postgraduate research program as well as the proposed research to complete the project.

Courses: IF49, SC80

Credit Points: 6 Contact Hours: 1 per week

■ LSN013 READINGS IN LIFE SCIENCE 3

A comprehensive and critical review of the background and current literature directly related to the research project topic. The review should identify major and minor deficiencies in the research literature and identify possible directions for future research. The review should be approximately 10 000 words and at least one draft should be presented to the supervisor prior to final submission.

Courses: IF49, SC80

Credit Points: 24

■ LSN023 RESEARCH SEMINARS IN LIFE SCIENCE 3

A 60-minute public seminar to include a presentation and question period outlining the results of the postgraduate research program as well as possible future research directions in this area.

Courses: IF49, SC80

Credit Points: 12

■ LSN102 CELLULAR BASIS OF DISEASE

Cell injury and stress mechanisms. Cellular communication. The responses of organelles, cells and tissues to injury and stress including: immune, inflammation, thrombosis, ageing and neoplastic responses. Transplantation and regeneration.

Courses: LS70, LS80

Prerequisite: 24 credit points in LS85

Credit Points: 12 Contact Hours: 3 per week

■ LSN110 MOLECULAR BASIS OF DISEASE

The aetiology, diagnosis and treatment of various diseases; study of molecular structures, biochemical reactions, integration and control of metabolism. Topics include: gene structure and function, proteins; structure and molecular dysfunction, and enzymes; properties and alterations in diseases; metabolic integration and hormone action, hormones and organ disease, disorders of carbohydrate and lipid metabolism and chemotherapy.

Courses: LS70, LS80

Prerequisites: 24 credit points in LS85

Credit Points: 12 Contact Hours: 3 per week

■ LSN150 ETHICS AND LIFE SCIENCE

A course which looks at the ethical implications of contemporary issues including: methods of epidemiological and research strategies, gene therapy, informed consent, abortion, ethics committees, organ transplantation and supply including foetal tissue.

Course: LS80

Credit Points: 12 Contact Hours: 3 per week

■ LSN159 ADVANCED PATHOLOGY

The fundamentals of anatomy, physiology and pathology; emphasis on applied cross-sectional anatomy and integration of knowledge of pathological processes.

Course: PH80

Credit Points: 12

Contact Hours: 4 per week

■ LSN510 CLINICAL BIOCHEMISTRY 1

The use of clinical biochemistry in the diagnosis of diseases. Disorders of fluid and electrolyte balance systems, disorders of the gastrointestinal, pancreatic and hepatobiliary systems, and disorders of the cardiovascular system and hypertension are studied, concentrating on diagnosis and the interpretation of biochemical results. In addition, aspects of instrumentation and laboratory methods are reviewed.

Course: LS80 Prerequisite: 96 credit points in LS85

Credit Points: 12

Contact Hours: 3 per week

■ LSN511 HAEMATOLOGY 1

Haematologic diseases: their aetiology, laboratory investigation, pathogenesis, principles of treatment and laboratory monitoring. The study program includes seminars, oral presentations and assignments selected from: haemopoietic kinetics, haemolytic disease, haemostasis and the haematologic implications of systemic disease. Assessment is by formal examination, assignments and seminar participation.

Course: LS80 Prerequisite: 96 credit points in LS85

Credit Points: 12

Contact Hours: 3 per week

■ LSN512 HISTOPATHOLOGY 1

Recent advances and modern methods in diagnostic histopathology. Topics include: immunohistochemistry, enzyme histochemistry and transmission electron microscopy methods.

Course: LS80

Prerequisites: 96 credit points in LS85

Credit Points: 12

Contact Hours: 3 per week

■ LSN515 MICROBIOLOGY 1

Bacteriology, virology, mycology and parasitology. Topics are chosen to increase the knowledge and understanding of micro-organisms associated with human infection. Recent trends and developments in diagnostic microbiology are studied. A critical approach to the assessment of laboratory practices and interpretation of data is developed.

Courses: LS80, LS85

Prerequisite: 96 credit points in LS85

Credit Points: 12

Contact Hours: 3 per week

■ LSN517 IMMUNOLOGY 1

Information retrieval systems and scientific writing. Five essay topics are selected following discussion with students, supervisor/employer.

Courses: LS80, LS85

Credit Points: 12

Contact Hours: 3 per week

■ LSN518 DIAGNOSTIC CYTOLOGY 1

Review of recent advances and modern methods in diagnostic cytology. The major topics are in gynaecological cytology.

Courses: LS80, LS85

Credit Points: 12

Contact Hours: 3 per week

■ LSN610 CLINICAL BIOCHEMISTRY 2

Clinical biochemistry in the diagnosis of diseases. Endocrinology, disorders of the muscular and skeletal systems, disorders of special groups, nutrition and drugs, neurochemistry and neural disorders, cancer-associated biochemical abnormalities, and seriously ill patient are studied, concentrating on diagnosis and the interpretation of results.

Courses: LS80, LS85

Prerequisite: LSN510

Credit Points: 12

Contact Hours: 3 per week

■ LSN611 HAEMATOLOGY 2

Topics include: age-related changes to the haemopoietic system, perinatal haematology, paediatric haematology and haematology in the elderly, nutrition anaemias, non-malignant and malignant leucocyte disorders, transplantation, automation and quality control. Since outside lecturers participate in these specialist electives some interchange of topics between this unit and LSN511 may be necessary.

Courses: LS80, LS85

Prerequisite: LSN511

Credit Points: 12

Contact Hours: 3 per week

■ LSN612 HISTOPATHOLOGY 2

Methods in diagnostic histopathology. The design and assessment of diagnostic programs to aid the identification of tumours and diseases of selected organ systems. Specialised techniques including aspiration cytology, scanning electron microscopy and analytical electron microscope methods.

Courses: LS80, LS85

Prerequisite: LSN512

Credit Points: 12

Contact Hours: 3 per week

■ LSN615 MICROBIOLOGY 2

Areas of bacteriology, virology, mycology and parasitology. Topics are chosen to increase the knowledge and understanding of micro-organisms associated with human infection. Recent trends and developments in diagnostic microbiology are studied. A critical approach to the assessment of laboratory practices and interpretation of data is developed.

Courses: LS80, LS85

Prerequisite: LSN515

Credit Points: 12

Contact Hours: 3 per week

■ LSN617 IMMUNOLOGY 2

Assist with the preparation of scientific publications and the presentation of data orally. Students are expected to prepare a short scientific paper based on raw data provided. They also prepare and present a short seminar based on the scientific paper.

Courses: LS80, LS85

Prerequisite: LSN517

Credit Points: 12

Contact Hours: 3 per week

■ LSN618 DIAGNOSTIC CYTOLOGY 2

Exploration of recent advances, methods and their applications in diagnostic cytology of body sites. Topics include: respiratory and urinary tract, body fluids and techniques such as fine needle aspiration.

Courses: LS80, LS85

Prerequisite: LSN518

Credit Points: 12

Contact Hours: 3 per week

■ LSN710 PROJECT

■ LSN711 PROJECT

■ LSN712 PROJECT

A supervised project in an area selected by the student. The project area may be novel, developmental or directed at an investigation of the introduction of a new system into the laboratory. Other areas which are considered appropriate include epidemiological analyses, laboratory safety, laboratory design or the efficacy of laboratory service. Each student submits a written project report in a style to present the data.

Course: LS80

Credit Points: LSN710 = 48, LSN711 & LSN712 = 24

■ LSP127 BUSINESS ASPECTS OF BIOTECHNOLOGY

Commercial perspectives of a biotechnology company; funding for commercial research; research patents and intellectual property; GMAC/recombinant DNA guidelines and regulations; overview of Australian biotechnology companies; site visits to one or two biotechnology companies.

Course: LS70

Credit Points: 12

Contact Hours: 5 per week

■ LSP735 HUMAN MOLECULAR BIOLOGY

A course of specialist lectures and research assignments for postgraduate students relating to the organisation and regulation of expression of information stored in the human genome. Additional subject areas include the molecular basis of genetic disorders, cancer, oncogenes and infectious disease; and clinical applications of nucleic acid diagnostic procedures, e.g. linkage analysis, DNA profiling, genetic screening.

Courses: LS70, LS80, SC60

Prerequisite: LSB637

Credit Points: 12

Contact Hours: 5 per week

■ LSP737 PLANT & ANIMAL MOLECULAR BIOLOGY

Techniques and applications of molecular biology for the genetic manipulation of plants and animals.

Courses: LS70, SC60

Prerequisite: LSB637

Credit Points: 12

Contact Hours: 5 per week

■ LSP739 CLINICAL MOLECULAR BIOLOGY

The theory behind the use of restriction endonucleases; radioisotopes and nucleic acid hybridisation procedures and their applications in the Polymerase Chain Reaction; linkage analysis, DNA profiling and genetic screening using oligonucleotides and gene probes.

Courses: LS85, SC60

Prerequisite: LSB437

Credit Points: 12

Contact Hours: 5 per week

■ LSX310 INTRODUCTION TO BIO CULTURE

Techniques of algal culture and plant tissue culture. Topics include: nutrition, continuous production techniques, and the use of growth regulators to control growth. The role of environmental factors in controlling growth also is discussed. Provides the theoretical basis for students undertaking electives in aquaculture techniques and/or plant tissue culture.

Courses: SC10, SC12

Credit Points: 8

Contact Hours: 3 per week

■ LSX311 COMPUTER APPLICATIONS IN BIOLOGY

Microcomputers and applications software such as wordprocessing, databases, spreadsheets and computer graphics for report presentation. This unit is not oriented towards any specific computer language.

Courses: SC10, SC12

Credit Points: 8

Contact Hours: 3 per week

■ LSX312 ANIMAL & PLANT TECHNIQUES

Care and maintenance of animal and plant resources, both micro- and macroscopic. Animal handling, maintenance of glasshouse resources, culture collections and sterile techniques, preparation of specimens for permanent collections and their maintenance.

Courses: SC10, SC12

Credit Points: 12

Contact Hours: 4 per week

■ LSX313 TAXONOMY

Investigation and identification of local flora and fauna; use and construction of keys. The concepts of systematics, classification, taxonomy and nomenclature procedure. Short lectures and tutorials associated with the practical exercises.

Courses: SC10, SC12

Credit Points: 8

Contact Hours: 3 per week

■ LSX315 PLANT PHYSIOLOGY

An introduction to the important aspects of whole-plant physiology, including nutrition, water relations, photosynthesis, translocation and stress physiology.

Course: SC10

Prerequisite: LSX110

Credit Points: 8

Contact Hours: 3 per week

■ LSX320 CLINICAL BIOCHEMICAL TECHNIQUES 3

A study of the basic chemical procedures used in biochemical laboratories with emphasis on technique and

accuracy. Topics include: tests of renal, pancreatic and hepatic functions; the estimation of serum proteins, lipids and carbohydrates.

Courses: LS12, LS15, SC10

Prerequisites: LSX221, LSX222, LSX225

Credit Points: 8 Contact Hours: 4 per week

■ LSX321 CLINICAL MICROBIOLOGICAL TECHNIQUES 3

The techniques used in isolation and identification of bacteria important in human and animal infections; the use of computerised data bases to assist in bacterial identification; tests for the sensitivity of bacteria to antibiotics; preparation, sterilisation, quality control and use of bacteriological media.

Courses: LS12, LS15

Prerequisite: LSX223

Credit Points: 8 Contact Hours: 4 per week

■ LSX322 HAEMATOLOGICAL TECHNIQUES 3

Lectures and practical work in haematological techniques. Topics include: the counting of blood cells; the preparation, staining and examination of blood films; the determination of the red cell indices; supravital staining techniques erythrocyte sedimentation rate and origin and maturation of blood cells.

Courses: LS12, LS15

Prerequisites: LSX122, LSX221, LSX225

Credit Points: 8 Contact Hours: 4 per week

■ LSX323 HISTOLOGICAL TECHNIQUES 3

Preparing tissue samples for examination by the various forms of light microscopy. Topics include: fixation, tissue processing, microtomy and an introduction to staining and light microscope techniques.

Courses: LS12, LS15

Prerequisites: LSX122, LSX221, LSX225

Credit Points: 8 Contact Hours: 4 per week

■ LSX324 IMMUNOLOGICAL TECHNIQUES 3

Introduction to immunology with particular emphasis on the principle and performance of immunological techniques including blood grouping. Topics include: antigens, antibodies and the immune system.

Courses: LS12, LS15

Prerequisites: LSX125, LSX225

Credit Points: 8 Contact Hours: 4 per week

■ LSX325 CYTOLOGICAL TECHNIQUES 3

Lectures and associated practical sessions in cytological methods and normal gynaecological cytology. Basis for clinical cytology offered in LSX425.

Courses: LS12, LS15

Prerequisites: LSX221, LSX225

Credit Points: 8 Contact Hours: 4 per week

■ LSX331 FOUNDATIONS OF ANAESTHETIC TECHNIQUES

Introduction to the ethical, moral and legal responsibilities of anaesthetic technicians; the standard equipment used in the operating rooms.

Courses: LS12, LS15

Credit Points: 12 Contact Hours: 5 per week

■ LSX332 PHYSIOLOGY & PHARMACOLOGY

A study of the anatomy and physiology of the main systems, with emphasis on the major pathological disturbances. Also an introduction to the pharmacology of drugs used in anaesthesia.

Courses: LS12, LS15

Prerequisite: LSX225

Credit Points: 12 Contact Hours: 5 per week

■ LSX333 ELECTRONICS & COMPUTING

An understanding of the basic principles of electronics, enabling an understanding of the complex equipment used for the dispensing of anaesthesia; the basic hardware and software of computers; word processing, databases and spreadsheets.

Courses: LS12, LS15

Credit Points: 12

Contact Hours: 5 per week

■ LSX334 OPERATING ROOM EQUIPMENT

Introduction to the ancillary equipment used in operating rooms; the methods in use in the operating rooms; team roles in the operating room.

Courses: LS12, LS15

Credit Points: 12

Contact Hours: 5 per week

■ LSX410 ENVIRONMENTAL BIOLOGY

Ecosystems and energy flow. Productivity, decomposition and nutrient cycling. Niche, species packing, diversity, colonisation and community structure. Short compulsory field trips.

Courses: SC10, SC12

Credit Points: 8

Contact Hours: 3 per week

■ LSX411 POPULATION BIOLOGY

Population biology: structure and dynamics, evolution and differentiation; the relationships between the genetics, energetics and dynamics of populations leading to particular life-history strategies. Field excursions are compulsory.

Courses: SC10, SC12

Corequisite: LSX412

Credit Points: 8

Contact Hours: 3 per week

■ LSX412 FIELD TECHNIQUES

Activities include surveying, soil and climatic measurements, assessment and sampling of animal and plant populations, evaluation of spatial changes in plant and animal communities in relation to environmental gradients. Skills are gained not only in sampling and analytical techniques, but also in the establishment and running of a field camp. An extended field excursion is a compulsory part of the unit.

Courses: SC10, SC12

Credit Points: 8

Contact Hours: 3 per week

■ LSX413 APPLICATIONS IN ELECTRON MICROSCOPY

The roles played by various forms of electron microscopy in the biological sciences and an introduction to the basic techniques and their limitations.

Courses: SC10, SC12

Prerequisites: LSX110, LSX111

Credit Points: 8

Contact Hours: 3 per week

■ LSX414 ANIMAL PHYSIOLOGY

The general physiological processes which sustain life; animal-environment interactions.

Course: SC10

Credit Points: 8

Contact Hours: 3 per week

■ LSX415 PLANT CELL & TISSUE CULTURE

Topics include: techniques, equipment and media used in plant tissue culture, the role of plant growth regulators, and micropropagation. The significance of organogenesis, somatic embryogenesis and genetic variability in plant tissue culture is discussed. Appropriate laboratory exercises.

Course: SC10

Prerequisites: LSX315

Credit Points: 8

Contact Hours: 3 per week

■ LSX420 CLINICAL BIOCHEMICAL TECHNIQUES 4

A study of more complex techniques used in clinical biochemical laboratories, including enzyme assays, estimations of electrolytes, blood gases, drugs, vitamins and hormones. Auto-analytical techniques and quality control are also treated.

Courses: LS12, LS15

Prerequisite: LSX320

Credit Points: 8

Contact Hours: 4 per week

■ LSX421 CLINICAL MICROBIOLOGICAL TECHNIQUES 4

Basic microbiological techniques in the following dis-

ciplines: virology, mycology and parasitology (enteric parasites). The practical periods are used to reinforce the theoretical aspects of the unit.

Courses: LS12, LS15 **Prerequisite:** LSX223
Credit Points: 8 **Contact Hours:** 4 per week

■ **LSX422 HAEMATOLOGICAL TECHNIQUES 4**

An extension of LSX322. The student is introduced to the common blood disorders. A brief outline of their aetiology and laboratory investigation is given. The main emphasis is the use of basic haematological techniques and some specialised laboratory procedures used in the investigation of commonly encountered blood diseases. The basic theory of haemostasis and the screening tests used in the investigation of the bleeding disorders are discussed.

Courses: LS12, LS15 **Prerequisite:** LSX322
Credit Points: 8 **Contact Hours:** 4 per week

■ **LSX423 HISTOLOGICAL TECHNIQUES 4**

Specialised methods for identifying tissue components. Topics include: electron microscopy, histochemistry, immunohistochemistry. Emphasis is placed on the practical application of these methods in histopathology.

Courses: LS12, LS15 **Prerequisite:** LSX323
Credit Points: 8 **Contact Hours:** 4 per week

■ **LSX424 TRANSFUSION TECHNIQUES 4**

The basic knowledge of immunology gained in LSX324 is applied to the study of human blood group systems. Topics include: principles of immunohaematology, ABO blood group, Rh blood group system, compatibility testing, antibody identification, transfusion reactions, antenatal testing, quality control, intravenous fluids, blood products.

Courses: LS12, LS15 **Prerequisite:** LSX324
Credit Points: 8 **Contact Hours:** 4 per week

■ **LSX425 CYTOLOGICAL TECHNIQUES 4**

Specialised preparative methods for non-gynaecological cytology and demonstrating the evaluation of specimens commonly encountered in routine diagnostic cytology.

Courses: LS12, LS15 **Prerequisite:** LSX325
Credit Points: 8 **Contact Hours:** 4 per week

■ **LSX431 CARDIAC CARE & RESUSCITATION**

In the operating room and intensive care units, the cardiac status of patients is monitored by several devices. Students are introduced to these devices as well as to the resuscitation equipment and special equipment used in lung and cardiac surgery.

Courses: LS12, LS15 **Prerequisite:** LSX332
Credit Points: 12 **Contact Hours:** 5 per week

■ **LSX432 CARE OF RESPIRATORY AIRWAYS & INTENSIVE CARE**

The care and maintenance of equipment used for the respiratory airways and in intensive care; acid-base balance, blood gases, and the equipment needed for the monitoring of those parameters.

Courses: LS12, LS15 **Prerequisite:** LSX332
Credit Points: 12 **Contact Hours:** 5 per week

■ **LSX433 ANAESTHESIA FOR SPECIALISED SURGERY**

Surgical interventions requiring anaesthesia; the techniques used and their effects on the vital parameters of patients in these special circumstances.

Courses: LS12, LS15 **Prerequisite:** LSX332
Credit Points: 12 **Contact Hours:** 5 per week

■ **LSX434 PROFESSIONAL PRACTICE**

The practical skills needed for the proper delivery of

anaesthetics. This is essentially a practical unit, which can only be taken towards the end of the course. The aim is for students to become proficient and confident in assisting with the delivery of anaesthesia.

Courses: LS12, LS15 **Prerequisite:** LSC334
Corequisites: LSX431, LSX432, LSX433
Credit Points: 12 **Contact Hours:** 5 per week

■ **LWB130 INTRODUCTION TO STUDY IN LAW**

This unit provides an intensive introductory framework for the study of law at QUT. It outlines fundamental aspects of law and the legal system. It also provides an introduction to the learning environment at QUT including different learning styles, the objectives and structure of the course, the skills and knowledge required and the learning environment in which they are acquired; an orientation or guidance map at the point of entry to the LLB learning environment.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LW41, LX31, LX32, LX33
Credit Points: Nil

■ **LWB131 LAW IN CONTEXT**

The varied contexts of law; involves input on some of the sources of law and traditional doctrinal approaches supplemented by contextual material describing other ways of seeing law from a number of perspectives including ideological, historical, political, social, economic and comparative.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LW41, LX31, LX32, LX33
Credit Points: 24 **Contact Hours:** 3 per week
Incompatible with: LWB101

■ **LWB132 CONTRACTS**

Contract law: definition of the Law of Contract, outline of remedies; formation of contracts; equitable estoppel; express and implied terms; factors vitiating contracts; capacity to contract; privity of contract; discharge of contract; breach of contract.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LW41, LX32, LX33
Credit Points: 24 **Contact Hours:** 3 per week
Incompatible with: LWB102

■ **LWB133 TORTS**

At its most general level this branch of the law is concerned with the question of compensation to be given by a person causing a loss to a person suffering a loss. Areas of everyday conflict which may be resolved by principles of tort liability include damage sustained as a result of a motor-vehicle collision, work related accidents, and injury to a person's reputation from publication of defamatory material. The rules are examined to ascertain whether they satisfy the critical test: functional adequacy in terms of contemporary values.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LW41, LX32, LX33
Credit Points: 24 **Contact Hours:** 4 per week
Incompatible with: LWB103

■ **LWB134 RESEARCH & LEGAL REASONING**

Legal reasoning involves the application of rules or standards of law to the resolution of legal problems, which typically arise in disputes, or potential disputes, between parties. Topics include: how to find the existing rules or standards of law and apply them to the solution of straightforward legal problems; and how to try to anticipate the way in which courts will decide the more complex or controversial matters.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LW41, LX31, LX32, LX33
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: LWB104

■ LWB135 LEGISLATION

Legislation (Acts of Parliament and delegated legislation) is the source of a very high and increasing proportion of law within the Australian system. An ability to understand the legislative process and the ability to read and interpret legislation provide some of the essential building blocks and background to the study and practice of statute based areas of the law. Such areas constitute the majority of later year units.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LW41, LX31, LX32, LX33

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: LWB101

■ LWB231 INTRODUCTION TO PUBLIC LAW

The basic institutions of government the executive, the Parliament and the judiciary; the general principles to which legislative power is subject, and the principles by which executive decision-making is kept open and accountable.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LW41, LX31, LX32, LX33

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: LWB203 and LWB311

■ LWB233 PROPERTY I

The general principles of property law; the nature of property, ownership and title and the differences between various types of property; Aboriginal native title and the rules relating to real property, including the Torrens system.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LW41, LX31, LX33

Credit Points: 24 **Contact Hours:** 3 per week
Incompatible with: LWB201

■ LWB234 EQUITY AND TRUSTS

The major principles of equity including: fiduciaries, unconscionable dealings and the principal equitable remedies; trusts and trusteeship.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LW41, LX31, LX33

Credit Points: 24 **Contact Hours:** 3 per week
Incompatible with: LWB301

■ LWB235 AUSTRALIAN FEDERAL CONSTITUTIONAL LAW

The constitutional arrangements effected by the Commonwealth Constitution; the structure and institutions of the constitution; the division of power between Commonwealth and states; and relations between the different levels of government; emphasis to Commonwealth legislative powers, executive and judicial powers.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LW41, LX31, LX33

Prerequisite: LWB231

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: LWB203

■ LWB302 FAMILY LAW

The manner in which the law treats the special social relationships which exist among members of a family and transforms them into legal rights and duties. The family as a legal phenomenon; annulment of marriages; dissolution of marriages; consequences of separation and divorce, such as maintenance, adjustment of interests in property and custody.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Credit Points: 12 **Contact Hours:** 3 per week

■ LWB306 LOCAL GOVERNMENT AND PLANNING LAW

The sources of legal authority for the government of cities, towns and shires; laws relating to town planning and

subdivision, including the principles applicable to the rezoning of land; uses of land; control of developments by local governments; rights to object to development; control exercised over subdivision of land by local government; rights of appeal from local government decisions; structure, purpose and procedure of the Planning and Environment Court; other legislation related to the town planning process, such as heritage legislation and contaminated land legislation.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Credit Points: 8 **Contact Hours:** 2 per week

■ LWB307 INSOLVENCY LAW

The insolvency of individuals and the Bankruptcy Act 1966 (Cth); winding up of companies, provisional schemes of arrangement and official management as procedures other than winding up which may be open to an insolvent company; law relating to receivership and agents of and mortgagees in possession; relevant provisions of the Corporations Law.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Prerequisites: LWB132 & LWB234

Credit Points: 12 **Contact Hours:** 3 per week

■ LWB308 INDUSTRIAL LAW

Rights and duties of employers and employees; unfair dismissal; entitlement to workers' compensation and the benefits available; the law governing the operation of trade unions and the rights of members; settlement of industrial disputes in the Commonwealth and state spheres by conciliation and arbitration; enterprise bargaining; industrial action.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX32, LX33

Credit Points: 8 **Contact Hours:** 2 per week

■ LWB309 SUCCESSION

Intestate and testate succession; definitions; joint and mutual wills; formal requirements for execution of valid will; alteration, revocation and revival of wills; administration of assets: duties, powers, rights and liabilities of personal representatives; family maintenance provisions: power of court to vary a will.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Credit Points: 8 **Contact Hours:** 2 per week

■ LWB312 LAND CONTRACTS

The principles involved in the construction of contracts for the sale of land, with special emphasis on the current standard REIQ Contract in use in Queensland. Statutory requirements as they affect such contracts, including those relating to building units and group titles conveyancing.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Prerequisites: LWB132, LWB233, LWB234

Credit Points: 12 **Contact Hours:** 3 per week

■ LWB313 DISCRIMINATION/EQUAL OPPORTUNITY LAW

An examination of the law and policy with respect to discrimination and equal opportunity in Australia; relevant international treaties and Australian legislation such as the Queensland Anti-Discrimination Act; the Anti-Discrimination Commission and procedures.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Credit Points: 12 **Contact Hours:** 3 per week

■ LWB315 JESSUP INTERNATIONAL LAW MOOT

The Philip C. Jessup International Law Moot, run under

the auspices of the American Society of International Law, is the premier moot competition in any area of the law in the world attracting participants from every major jurisdiction. The competition requires the ability to research, analyse, apply and communicate (both orally and in written form) legal argument with respect to a complicated problem in Public International Law. Members of the QUT team will participate in the joint preparation of two memorials (one for the applicant and one for the respondent) satisfying the requirements of the Official Rules of the competition, with respect to the contents of and issues raised by the problem for the given year. Some or all of the team members will then present oral arguments in the Australian rounds of the Jessup Moot competition, and at the international rounds in the United States if the team wins the Australian round.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Credit Points: 8 **Contact Hours:** 2 per week

■ LWB331 ADMINISTRATIVE LAW

The law relating to judicial review of executive decision making and control of government officials and public authorities, especially where the exercise of power affects the rights and interests of individuals.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Prerequisite: LWB231

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: LWB311

■ LWB332 PROPERTY 2

Fundamental concepts of personal property law; the concept of negotiability; transfers of personal property; protection of personal property interests; agency; bailment.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Prerequisite: LWB233

Corequisite: LWB233

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: LWB303

■ LWB333 THEORIES OF LAW

The legal theories of industrialised society; historical contexts; underlying values and assumptions; economic, political and social objectives; the practical consequences of application to legal and social problems.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Prerequisite: LWB131

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: LWB305

■ LWB334 CORPORATE LAW

The basic legal principles relating to registered companies; the principle of the veil of incorporation, internal functioning of a registered company including the memorandum and articles of association; dealings with third parties; legal rules relating to share capital, dividends and loan capital; introduction to obligations of company officers and shareholder rights.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: LWB401

■ LWB351 ABORIGINAL AND ISLANDER LEGAL ISSUES

Government policy and legislation; rights of citizenship; two laws, one land; Aboriginal land tenure; Mabo; the Native Title Act (Cth); international law and indigenous people; cultural heritage; intellectual property rights; ATSIC Act (Cth); social justice package.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Credit Points: 8 **Contact Hours:** 2 per week

■ LWB353 ADVANCED ADMINISTRATIVE LAW

Extends and builds upon an understanding of the fundamental principles of judicial review and legal control of government established in the core unit LWB311. Provides students with a forum to consider a range of issues which impinge upon government accountability; and also with an understanding of issues which affect the rights of citizens in their relations with the government.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Prerequisites: LWB231, LWB311

Credit Points: 8 **Contact Hours:** 2 per week

■ LWB354 ADVANCED CIVIL PROCEDURE

This elective unit builds on civil procedure providing advanced litigation skills focusing on interlocutory and summary procedures. Content includes case flow management, commercial causes, discovery, inspection, interrogatories, drafting, briefs and advices, default and summary judgment, time constraints, injunctions, interlocutory applications, interim preservation orders, costs and management of litigation.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Prerequisite: LWB431

Credit Points: 8 **Contact Hours:** 2 per week

■ LWB359 ADVANCED TAXATION LAW

An examination of the taxation of business entities (partnerships, trusts and companies). Some tax planning issues together with the tax avoidance provisions will also be canvassed.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX32, LX33

Prerequisite: LWB364

Credit Points: 8 **Contact Hours:** 2 per week

■ LWB361 DRAFTING

Drafting of deeds, contract conditions, leases and mortgage clauses in a plain English format. Stamp duties on instruments.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LX31, LX32, LX33

Prerequisites: LWB233

Prior Assumed: LWB312, LWB492

Credit Points: 8 **Contact Hours:** 2 per week

Incompatible with: LWB414

■ LWB363 INSURANCE LAW

Risk management, in particular insurance, will play an increasingly significant role in modern commercial life. Insurance however is not limited to the commercial sphere but spans a wide variety of subject matter, including compulsory schemes such as third party motor vehicle insurance and workers' compensation. From a vocational perspective the study of insurance law is important, being encountered by property, commercial and litigation lawyers. From an educational perspective, the unit offers an appreciation of how the common law has been modified by the legislature to balance the interests of the insurer and the insured.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Credit Points: 8 **Contact Hours:** 2 per week

■ LWB364 INTRODUCTION TO TAXATION LAW

The principles relating to the distinction between income and capital, the concept of deductions; introductory capital gains tax, the tax avoidance provisions and liability of tax advisers.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LX31, LX32, LX33

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: LWB403

■ LWB366 LAW OF COMMERCIAL ENTITIES

The legal principles pertaining to a number of different structures found in commercial life. A brief consideration of corporations; more detailed examination of partnerships, unit trusts, joint ventures, the definition of these structures; relationship with third parties; relationship of members inter se.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Credit Points: 8 Contact Hours: 2 per week

■ LWB367 LAW OF CORPORATE GOVERNANCE

This unit is offered as a 'specialised' unit providing an examination of the two organs which govern a company: the board of directors and the company in general meeting. The unit will examine in some detail particular aspects of the law applicable to these bodies, for example some of the duties affecting directors; topical issues such as directors' interests in contracts would be relevant; the role of waiver of breaches and improprieties; members' rights and protection; relevant aspects of meeting law.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF32, LX33, IF31, LW33, ME36,

Credit Points: 12 Contact Hours: 3 per week

■ LWB406 FUNDAMENTALS OF PUBLIC INTERNATIONAL LAW

The legal rules which govern the activities of nations between themselves and with international organisations, such as the UN; the creation of international law: treaties, customary law, general principles of law; the concept of international legal personality: statehood, self-determination, recognition; the effects of international law: sovereignty, international responsibility, the law of armed conflict.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Credit Points: 8 Contact Hours: 2 per week

■ LWB407 CONFLICT OF LAWS

The body of law governing the resolution of private legal problems with a significant foreign element; jurisdiction of domestic courts to determine matters having a foreign element; enforcement of foreign judgments in the domestic jurisdiction; choice of law for the resolution of the dispute, both generally and in relation to family law, contract, tort, property and succession.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Prerequisite: LWB131

Credit Points: 12 Contact Hours: 3 per week

■ LWB410 RESTRICTIVE TRADE PRACTICES

An overview of the anti-competitive practices which are proscribed by Part IV of the Trade Practices Act 1974 (Cth). It will also deal with the remedies available for contraventions of Part IV and the possibility of obtaining authorisation and/or where appropriate notification from the Australian Competition and Consumer Commission.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Credit Points: 8 Contact Hours: 2 per week

■ LWB412 RESEARCH & WRITING PROJECT

An arranged and supervised piece of research into some area of legal knowledge, and the writing of a paper of between 10 000 and 15 000 words on the results of the research and conclusions drawn therefrom. The paper becomes the property of the Faculty of Law and may be placed in the Law Library. A student wishing to undertake the Research and Writing Project should discuss the matter as early as possible in the semester immediately before that in which he or she proposes to

undertake it. The written proposal must reach the Dean at least two clear weeks before the beginning of the teaching semester in which the project is undertaken, and the proposal is accepted or refused, and the student notified accordingly, not later than the first day of that semester.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LW41, LX31, LX32, LX33

Credit Points: 8 Contact Hours: 2 per week

■ LWB431 CIVIL PROCEDURE

The structures and processes of litigation conducted in the Supreme and Federal Courts; examination of jurisdiction, limitation of actions, motor vehicles insurance, client care, originating process, appearance, service, parties, joinder, pleadings, evidence, subpoena, settlement, trial, appear costs and execution.

Courses: IF31, IF33, IF34, IF36, IF38, IF40, LW31, LW33, LW41, LX31, LX32, LX33

Credit Points: 12 Contact Hours: 3 per week

Incompatible with: LWB404

■ LWB432 EVIDENCE

The rules and principles that relate to the presentation of facts to a court of law.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LW41, LX31, LX32, LX33

Credit Points: 12 Contact Hours: 3 per week

Incompatible with: LWB402

■ LWB433 PROFESSIONAL RESPONSIBILITY

The ethical principles upon which the practice of all professions is based; the principles which underpin the discipline of law and the workings of the legal profession; the history, nature, organisation and operation of the legal profession; including codes of conduct, trust accounts and professional legal ethics.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LW41, LX31, LX32, LX33

Credit Points: 12 Contact Hours: 3 per week

■ LWB434 ADVANCED RESEARCH AND LEGAL REASONING

Exploration of suitable theoretical frameworks for understanding Australian legal reasoning generally, topical developments in substantive areas of law by way of illustration of the theoretical models; advanced skills of legal research and analysis.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF39, IF40, LW31, LW33, LW41, LX31, LX32, LX33

Prerequisite: LWB134

Credit Points: 12 Contact Hours: 3 per week

Incompatible with: LWB415

■ LWB452 ASIAN LEGAL SYSTEMS

Basic knowledge of Asian legal systems; a general overview of the region; specific countries, e.g. China, Japan and Malaysia; practical areas of the law are studied and comparisons drawn with Australian law.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF39, IF40, LW31, LW33, LW41, LX31, LX32, LX33

Credit Points: 8 Contact Hours: 2 per week

■ LWB454 BANKING & FINANCE LAW

An introduction to the Australian banking system, including: terms of contracts between banker and customer; Clearance System; rights of recovery and liabilities of paying and collecting banks; current legal topics of interest in the banking industry. An introduction to negotiable instruments; principle of negotiability; liability of parties to a negotiable instrument and the consequences of fraud.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF39, IF40, LW31, LW33, LW41, LX31, LX32, LX33

Credit Points: 8 Contact Hours: 2 per week

■ **LWB456 LEGAL CLINIC (ORGANISED PROGRAM)**

Students are provided with the opportunity to see law in action through being involved in the delivery of legal services to members of the community under the umbrella of the Legal Aid Office (Queensland). Students' work in the Legal Aid Office is supplemented with a weekly seminar program which deals with such topics as legal interviewing, family and criminal law practice, professionalism and legal writing.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Prior Assumed: LWB232 or LWB302

Credit Points: 12 **Contact Hours:** 8 per week

■ **LWB458 CONSUMER PROTECTION**

The course will deal with the Trade Practices Act 1974, and will be divided into two broad parts, the first dealing with Part V and the second with the product liability provisions found in Part V and Part VA. Misleading or deceptive conduct, the general principles of product liability and implied conditions and warranties.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Credit Points: 8 **Contact Hours:** 2 per week

■ **LWB461 PRIVATE LAW REMEDIES**

Students develop an overall perspective on and deeper understanding of the subject of remedies. The unit is designed to give students a knowledge of the principles underlying the availability of various private law remedies, and to introduce students to an understanding of the circumstances which may give rise to a claim for restitution. It also develops a knowledge and understanding of the choice and range of private law remedies and defences and the capacity to make sound judgments in electing which remedies to pursue against a background of heterogeneous fact situations.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Prerequisites: LWB132, LWB133, LWB234

Credit Points: 8 **Contact Hours:** 2 per week

■ **LWB482 COMPUTERS & THE LAW**

The role of computers in legal practice; the body of law that has arisen in relation to computers and computer applications.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Credit Points: 8 **Contact Hours:** 2 per week

■ **LWB483 MEDICO-LEGAL ISSUES**

The constitutional framework supporting the regulation of health care; the relationship between the individual and the health care provider in terms of consent to treatment and negligence; the impact of the criminal law: abortion, removal from life support systems; mental illness and fitness to plead; medical records and evidence; ownership and confidentiality of records, expert evidence; the role of the coroner; complaints against hospitals and health care workers.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Prerequisites: LWB131, LWB133

Credit Points: 8 **Contact Hours:** 2 per week

■ **LWB485 ENVIRONMENTAL LAW**

An introduction to environmental law in Queensland; the sources, nature and development of environmental law in Queensland; the concepts of environmental law (e.g. property, administrative control, law and policy, planning, management); access to the environment; planning to prevent environment degradation and pollution; protecting the environment; managing the environment; conservation; ecologically sustainable development;

enforcement of environmental law; the role of the Commonwealth.

Courses: IF31, IF33, IF34, IF36, IF37, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Credit Points: 8 **Contact Hours:** 2 per week

■ **LWB486 INTELLECTUAL PROPERTY LAW**

The most significant of the legislative enactments creating or protecting intellectual property in Australia, including those governing copyright, designs, patents and trade marks; application of the common law, particularly confidential information and passing off.

Courses: IF31, IF33, IF34, IF36, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Credit Points: 8 **Contact Hours:** 2 per week

■ **LWB487 MARITIME LAW**

Carriage of goods by sea; charterparties; marine insurance; general average; salvage; collisions; admiralty jurisdiction and arrest of ships; oil pollution; registration, sale and mortgage of ships; and limitation of ship operators' liability.

Courses: IF31, IF33, IF34, IF36, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Credit Points: 8 **Contact Hours:** 2 per week

■ **LWB492 SECURITIES**

The unit examines security interests including securities given by third parties over real and personal property. Those securities examined include Torrens title mortgages, guarantees, bills of sale over personal assets and motor vehicles, possessory liens and subcontractors' charges. The consumer credit legislation and Trade Practices Act 1974 as they affect the validity and operation of securities will also be considered.

Courses: IF31, IF33, IF34, IF36, IF38, IF40, LW31, LW33, LX31, LX32, LX33

Prerequisites: LWB132, LWB233

Credit Points: 12 **Contact Hours:** 3 per week

■ **LWN003 ADVANCED FAMILY LAW**

A detailed examination of the law and underlying principles of selected areas of Family Law including: jurisdiction; financial aspects of marriage and divorce; children; marital and non-marital relationships. Where appropriate, comparisons with other countries are used and the impact of treaties is considered.

Courses: LW50, LW51

Credit Points: 24 **Contact Hours:** 2 per week

■ **LWN008 COMMERCIAL LEASES**

The principles governing standard clauses of a modern Australian commercial lease in the light of recent case law and Queensland statutory provisions affecting such interests. Topics include: negotiation of leases, subject matter of leases, construction of leases, covenants for repair, user, assignment, quiet possession, options to renew and purchase, insurance, the phenomenon of default, remedies of lessor and lessee, guarantees of leases and retail shop leases generally.

Courses: LW50, LW51

Credit Points: 24 **Contact Hours:** 2 per week

■ **LWN017 RESTITUTION 1**

The law of restitution is concerned with those cases where a plaintiff obtains a money remedy and/or recovers property from a defendant who has been unjustly enriched by the receipt of money or other benefits at the expense of the plaintiff. The theoretical basis and scope of restitutionary claims and defences to them and their relationship with those claims founded on the traditional common law obligations, torts and contract and the law of property are considered.

Courses: LW50, LW51

Credit Points: 12 **Contact Hours:** 2 per week

■ LWN018 SELECT PROBLEMS OF TRUSTS

Aspects of the principles of equity in the context of express, resulting and constructive trusts including the creation of trusts, the nature of equitable proprietary interests, proprietary remedies for the recovery of property in equity including equitable charges and liens and various aspects of tracing in equity, particularly in the context of bankruptcy and insolvency. Some aspects of resulting trusts are considered in relation to illegality and in relation to determining the ownership of property. Various aspects of constructive trusts are also considered, including the nature of the constructive trust, the acquisition of property by a fiduciary, the acquisition of property on death, the acquisition of land under an oral agreement or trust, unconscionable conduct in the context of undue influence, unconscientious dealing, estoppel and in the context of determining the equitable ownership of property.

Courses: LW50, LW51

Credit Points: 12 Contact Hours: 2 per week

■ LWN020 NON-RESIDENT & FOREIGN SOURCE TAXATION

Questions relating to residence, source, transfer pricing and the legislation relating to Controlled Foreign Entities; the effect of Double Tax Treaties.

Courses: LW50, LW51

Credit Points: 12 Contact Hours: 2 per week

■ LWN021 BANKING & FINANCE LAW 1

Topics include: overview of the legal framework of the Australian banking and finance industry; 'money' and 'legal tender'; foreign exchange transactions; banker and customer and incidents of that relationship; bank accounts and dealings in relation to such accounts; bills of exchange, promissory notes and cheques; collecting bank and paying bank; the clearing system.

Courses: LW50, LW51

Credit Points: 12 Contact Hours: 2 per week

■ LWN022 BANKING & FINANCE LAW 2

Topics include: banking instruments including documentary and standby credits, performance bonds and bank guarantees; electronic banking; the role of bankers as financiers and specific financing methods such as bill line facilities and foreign currency loans; securities for finance including company securities; default and insolvency and its impact on bankers.

Courses: LW50, LW51

Credit Points: 12 Contact Hours: 2 per week

■ LWN024 SELECT PROBLEMS OF TRIBUNALS & ENQUIRIES

Investigation of problems that occur in the law relating to the activities of tribunals and enquiries; concentrates on Royal Commissions and related forms of enquiries, as well as statutory tribunals exercising quasi-judicial functions. Topics include: the power to require information; the privilege against self-incrimination; Crown privilege and duties of secrecy; do the rules of procedural fairness apply?; can an enquiry commit a contempt of court?; enquiries and the rules of parliamentary privilege; the power of the courts to review the activities of enquiries; enquiries that investigate a mixture of federal and state matters; the laws of privacy and confidentiality. Legislative attempts to oust judicial review of inquiries and tribunals.

Courses: LW50, LW51

Credit Points: 12 Contact Hours: 2 per week

■ LWN025 RESEARCH PROJECT 1A

A supervised research project over one semester approved by the Postgraduate Studies Committee. Students may undertake up to 48 credit points of Research Projects only with the approval of the Director of Postgraduate Studies.

Courses: LW50, LW51

Credit Points: 12

■ LWN026 RESEARCH PROJECT 2A

A supervised research project over the whole year approved by the Postgraduate Studies Committee. Students may undertake up to 48 credit points of Research Projects only with the approval of the Director of Postgraduate Studies.

Courses: LW50, LW51

Credit Points: 24

■ LWN028 ADVANCED SECURITIES

Competing claims to fixtures on land; the nature of a charge and a mortgage; security over bank accounts; recent problems with Bills of Sale legislation; the mortgagee's power of sale; guarantees and indemnities; fixed and floating securities; some problems arising from receiverships and mortgagees in possession; securities and the Trade Practices Act; bank guarantees and unconditional performance bonds; the demise of the scintilla temporis principle; romalpa clauses; co-ownership and security interests; negative pledges; securities over future property; the nature of various security interests; and the giving of formal opinions in relation to security documentation.

Courses: LW50, LW51

Credit Points: 12

■ LWN030 DISPUTE RESOLUTION/ MEDIATION

A study of mediation looking at both the theory and practice. Students are expected to be involved in a number of class workshops to learn mediation skills; therefore an attendance rate of 80 per cent (i.e. 11 out of 14 classes) is necessary to gain a mark in the unit. Issues include: mediation in Australia; theories of mediators; different forms of mediation, i.e. neighbourhood, family, commercial; the advantages and disadvantages of mediation; power imbalance; when mediation is not appropriate; ethical and professional issues relating to mediation.

Courses: LW50, LW51

Credit Points: 12 Contact Hours: 2 per week

■ LWN031 FOREIGN INVESTMENT LAW & PRACTICE

The law and policy regime for Australian foreign investment at Commonwealth and state levels; theoretical and practical aspects of foreign investment regulation; workshops and seminars covering Commonwealth and state legislation, situations commonly arising in practice, and topics related to foreign investment (e.g. native title, government contracts, etc.).

Courses: LW50, LW51

Credit Points: 12 Contact Hours: 2 per week

■ LWN032 CREDIT FOR UQ SUBJECT 1

Under the course rules, a coursework student may, with the prior approval in writing of the Deans of the Faculties of Law of QUT and of the University of Queensland, undertake any combination of whole year and one semester units offered in the LL.M degree by Coursework at the University of Queensland which are equivalent to no more than 48 credit points. This unit code represents a one-semester unit taken pursuant to that course rule at the University of Queensland.

Courses: LW50, LW51

Credit Points: 12

■ LWN033 CREDIT FOR UQ SUBJECT 2

See LWN032.

Courses: LW50, LW51

Credit Points: 12

■ LWN034 CREDIT FOR UQ SUBJECT 3

See LWN032.

Courses: LW50, LW51

Credit Points: 24

■ LWN035 MEDICO-LEGAL ISSUES

The Constitutional framework supporting the regulation of health care; the relationship between the individual and the health-care provider in terms of consent to treatment and negligence; the impact of the criminal law,

abortion, removal from life support systems; medical records and expert evidence; ownership and confidentiality of records; the role of the coroner; complaints against health-care workers.

Courses: LW50, LW51

Credit Points: 12 **Contact Hours:** 2 per week

■ **LWN036 SELECT ISSUES IN INTELLECTUAL PROPERTY LAW**

The application of intellectual property law to common commercial arrangements; develops an awareness of emerging issues in intellectual property including application to computers, performers' rights and moral rights; examines the remedies, procedures and processes in this field.

Courses: LW50, LW51

Credit Points: 12 **Contact Hours:** 2 per week

■ **LWN037 STAMP DUTY & COMMERCIAL TRANSACTIONS**

Whilst stamp duty remains a tax on instruments, amendments to the Stamp Act have had the result that it is essentially a transactional impost. On completion, students have a sound understanding of the scope of the Act and of the circumstances in which commercial transactions attract a liability to duty. Topics include: territorial nexus; stamp duty administration; transactions concerning companies; transactions concerning trusts; partnership transactions; planning and structuring issues; anti-avoidance provisions.

Courses: LW50, LW51

Credit Points: 12 **Contact Hours:** 2 per week

■ **LWN038 CAPITAL GAINS TAX & COMMERCIAL TRANSACTIONS**

The capital gains tax provisions contained in Part IIIA of the Income Tax Assessment Act have the potential to apply to innumerable acts, transactions and events. Topics in this unit include: the relationship between Part IIIA and the other taxing provisions of the Act; the general scheme of Part IIIA; the threshold conditions to the application of the Part; the calculation provisions of the Part; the function and operation of roll-over provisions; companies and capital gains tax; partnerships and capital gains tax; trust and capital gains tax; planning and structuring issues; tax avoidance and capital gains tax.

Courses: LW50, LW51

Credit Points: 12 **Contact Hours:** 2 per week

■ **LWN041 ECONOMIC ANALYSIS OF THE LAW**

A consideration of the manner in which, and the extent to which, the principles and methodologies of economics can be applied in the analysis of statutes and the common law, in evaluating proposals for the reform of the law, and in explaining, justifying or criticising particular rules of law. Particular focus is placed on the analysis of various contemporary issues in the law of torts and the law of contract. A previous course in economics is recommended.

Courses: LW50, LW51

Credit Points: 12 **Contact Hours:** 2 per week

■ **LWN043 LAW OF COMPANY TAKEOVERS**

Consideration of Chapter 6 of the Corporation Law which regulates acquisition of shares which affect a change in a company's control. Both practical perspectives and conceptual analysis are emphasised.

Courses: LW50, LW51

Credit Points: 12 **Contact Hours:** 2 per week

■ **LWN044 INSTITUTIONAL INVESTORS**

An advanced corporate banking financial institution course. Institutional investors are financial institutions like premium funds, insurance companies, mutual funds, savings and trust departments of banks, trust companies,

securities firms, all of which invest on behalf of the public. The way they make investments is governed by statute and by common law as well as by contract. Institutional investors now are investors in the global financial and capital markets. The unit entails three parts. The first part deals with a description of institutional investors in Australia, Asia, North America and Europe. The second part canvasses the common and statutory law regulating and governing institutional investors as well as contract law. The third part deals with special topics such as conflict of interest, exclusive self-dealing and the investors role in corporate covenants, especially in proxy battles, mergers and takeovers as well as social investments and the breach of the prudent man rule.

Courses: LW50, LW51

Credit Points: 12 **Contact Hours:** 2 per week

■ **LWN045 LAW RELATING TO PUBLIC & OFFICIAL CORRUPTION**

Concept of public duty; response of the general law; anti-corruption models; investigation and prosecution of official corruption from the perspective of the Criminal Law.

Courses: LW50, LW51

Credit Points: 12 **Contact Hours:** 2 per week

■ **LWN046 ADVANCED PLANNING LAW**

A detailed study of town planning law with special emphasis on the following: relevant Queensland legislation and in particular the Local Government Planning & Environment Act 1990 and the impact of the planning, environmental and development assessment. The implementation, structure and operation of town planning schemes, Strategic Plans and their legal effect. The role and jurisdiction of the Planning & Environment Court, its Rules of Court, rights of appeal therefrom and the power of costs. Applications for town planning consent, rezoning and subdivision of land and relevant considerations in connection therewith. The rights and obligations of objectors, objector appeals and appeals by applicants. Reasonable and relevant conditions in certain specified case areas together with an examination of relevant case law applicable thereto. Existing and non-conforming uses; other legislation impacting on town planning. Prior experience in town planning is not a prerequisite.

Courses: LW50, LW51

Credit Points: 12 **Contact Hours:** 2 per week

■ **LWN047 LEGAL EDUCATION**

This unit involves an introduction to the main schools of thought on legal education. A review of legal education from an historical and sociopolitical perspective together with consideration of the implications on legal education of new schools of contemporary thought such as feminist legal theory. An analysis of the learning process considering student approaches to learning, adult learning theory and learning styles; consideration of a variety of teaching styles/techniques and the appropriateness and effectiveness of each. Consideration of matching learning styles with teaching methods and the validity and effectiveness of such an approach. Consideration for the need, role and implementation of training needs analyses and goal setting. Analysing the elements of objectives and aims and how to set them with a view to designing a teaching/training program. Consideration of the means of evaluating teaching/training effectiveness. Consideration of the legal education continuum. Consideration of the needs of adult learners.

Courses: LW50, LW51

Credit Points: 12 **Contact Hours:** 2 per week

■ **LWN048 ADVANCED LEGAL RESEARCH**

The concepts, techniques, aims and methods of legal research and other research relevant to an interdiscipli-

nary perspective. Extensive training in finding source material, including the use of advanced technology in locating and organising source materials. The unit also deals at length with the presentation and defence of research including the respective roles of researcher and supervisor, structuring research material in support of a thesis, the diagnosis and remedy of structural problems. It also deals with the conventions of presentation, 'assessment' of research in terms of the differing criteria for refereeing and judging 'worth' and quality and ethics of research. Different research objectives will be considered for attention, for example research in government or for law reform.

Courses: LW50, LW51

Credit Points: 12 Contact Hours: 2 per week

■ LWN049 INTERNATIONAL ENVIRONMENTAL LAW

The development of international environmental law; state responsibility for environmental protection; conservation of biological diversity; climate changes; protection of the atmosphere; protection of wildlife and habitats; hazardous wastes and toxic chemicals; conservation of the world heritage; international trade and the environment; international dispute resolution; enforceability of international legal regimes.

Courses: LW50, LW51

Credit Points: 12 Contact Hours: 2 per week

■ LWN050 RESTRICTIVE TRADE PRACTICES LAW

The unit is concerned with an analysis of those sections of the Trade Practices Act dealing with horizontal and vertical restraints of competition, misuse of market power, and mergers. These substantive prohibitions are intended to regulate competition in markets. The early part of the course focuses on basic concepts such as markets, competition, and market power. The main part of the course is concerned with analysing the elements of each of the substantive prohibitions contained in Part IV of the Act and the way in which they may apply to various agreements and business practices. After considering the substantive prohibitions, the final part of the unit is concerned with remedies and defences and the role played by the Australian Competition and Consumer Commission, the Tribunal and the courts.

Courses: LW50, LW51

Credit Points: 12 Contact Hours: 2 per week

■ LWN051 CONSUMER PROTECTION & PRODUCT LIABILITY

This unit is divided into two main parts. The first part considers the statutory and common law actions which are available to protect consumers from misleading or deceptive conduct and unfair marketing practices. Emphasis is given to the role played by the Trade Practices Act in relation to conveyancing and land transactions, banking transactions and advertising. Unconscionable conduct is also considered. The second part of the unit is concerned with statutory and common law actions available when loss or damage is suffered as a result of defective products. Remedies and defences are considered throughout the course.

Courses: LW50, LW51

Credit Points: 12 Contact Hours: 2 per week

■ LWN052 LITIGATION – CIVIL PROCEDURE

Focus upon topics of current interest or difficulty in civil procedure. Supreme and Federal Court rules and practice directions are considered in the light of the theories of civil procedure and tactics involved in dispute resolution. Some principles of negotiation and alternative dispute resolution are also addressed. Participants will acquire an appreciation of the dynamics of the adversarial

process and an understanding of selected principles of interlocutory disputes in the light of the tactics involved in an action as a whole. Offers an opportunity for students to deepen and broaden their legal education in a way related directly to professional practice.

Courses: LW50, LW51

Credit Points: 12 Contact Hours: 2 per week

■ LWN053 RESEARCH PROJECT 1B

See LWN025.

Courses: LW50, LW51

Credit Points: 12

Prerequisite: LWN025

■ LWN054 CONTEMPORARY COMMERCIAL LEGAL ISSUES

The law and practice of contemporary commercial legal issues; topics covered include governmental trade practices liability, Queensland native title law and practice, third party securities (corporate and personal), Australian foreign investment regulation, topical legal problems in property valuation, paradigm shifts in Australian law and their impact on commercial practice, crown immunity and corporatisation, and client-based research in commercial practice.

Courses: LW50, LW51

Credit Points: 12 Contact Hours: 2 per week

■ LWN055 CIVIL RIGHTS

The central principles concerning the protection of human rights under domestic law; the impact of international human rights law on domestic law; other jurisdictions are compared with the relevant areas of Australian law and practice.

Courses: LW50, LW51

Credit Points: 12 Contact Hours: 2 per week

■ LWN056 RESEARCH PROJECT 1C

See LWN025.

Courses: LW50, LW51

Prerequisites: LWN025, LWN053

Credit Points: 12

Contact Hours: 2 per week

■ LWN057 RESEARCH PROJECT 1D

See LWN025.

Courses: LW50, LW51

Prerequisites: LWN025, LWN053, LWN056

Credit Points: 12

Contact Hours: 2 per week

■ LWN058 RESEARCH PROJECT 2B

See LWN026.

Courses: LW50, LW51

Credit Points: 24

Prerequisite: LWN026

■ LWN059 REMEDIES

The theoretical bases of major common law and equitable remedies and the substantive law relating to those remedies; the operation of the law of remedies in Australia and the need for reform of the law of remedies.

Courses: LW50, LW51

Credit Points: 12

Contact Hours: 2 per week

■ LWN060 ENVIRONMENTAL LEGAL SYSTEM

Analysis of the principles and concepts of environmental law in Queensland; understanding of the law in Queensland for the protection and conservation of the environment; examination of the way in which the law accommodates private interests and the public interest. Included are pollution control, environmental impact assessment, environmental management, conservation of the natural and cultural environments.

Courses: IF64, LW50, LW51

Credit Points: 12

Contact Hours: 2 per week

■ LWN061 NATURAL RESOURCES LAW

The principles and concepts of natural resources law in Queensland dealing with the ownership and control of

natural resources, providing access to these resources, controlling the operational side of the development of these resources, and recognising commercial structures for achieving these operational objectives; an assessment of a number of developed and evolving mechanisms for achieving these objectives such as policy objectives, management plans, incentives and inducements, market instruments and property rights.

Courses: IF64, LW50, LW51

Credit Points: 12 **Contact Hours:** 2 per week
Incompatible with: LWN014, LWN027

■ **LWN062 FEDERAL ENVIRONMENTAL LAW**

History of Commonwealth involvement in environmental management; the Inter-Governmental Agreement of 1992; relevant paragraphs of s. 51 of the Constitution; judicial interpretation of the paragraphs; impact of ss 90, 92 and 109 of the Constitution; federal legislation dealing with offshore development, marine environment protection, environmental impact assessment, national estate, wildlife conservation, Great Barrier Reef, hazardous waste and industrial chemicals, world heritage, ozone protection, ecologically sustainable development, climate changes, and biological diversity.

Courses: LW50, LW51

Credit Points: 12 **Contact Hours:** 2 per week

■ **LWN063 COMPARATIVE ENVIRONMENTAL LAW**

The principles of environmental regulation in other jurisdictions and the range of policy and legal instruments being utilised to achieve environmental objectives; jurisdictions include European countries, such as Germany and the United Kingdom, the European Union, and countries in North America and the Asia Pacific region.

Courses: LW50, LW51

Credit Points: 12 **Contact Hours:** 2 per week

■ **LWN064 THEORIES OF CONTEMPORARY LEGAL CRITIQUE**

The influence upon legal, political and institutional reform of contemporary legal critiques, especially of race, gender, culture/ethnicity and class.

Courses: LW50, LW51

Credit Points: 12 **Contact Hours:** 2 per week

■ **LWN065 CONSTRUCTION & ENGINEERING LAW**

Standard contracts used in the Australian construction and engineering industries and the legal issues confronting users of these documents; the law of contract and legislation as it applies to the construction and engineering industries at an advanced level; issues of drafting in relation to the relevant standard forms.

Courses: LW50, LW51

Credit Points: 12 **Contact Hours:** 2 per week

■ **LWN066 ADVANCED INSURANCE LAW**

Detailed examination at an advanced level of the general principles of law applicable to contracts of insurance as well as an examination of the idiosyncratic rules and practices pertaining to specific types of insurance. Topics include: Nature and definition of insurance; insurable interest; third parties' interests; utmost good faith; brokers and agents; formation of contracts, proposals, etc.; contract terms; claims; indemnity and amount recoverable; subrogation; double insurance and contribution; regulation of insurers; marine insurance; workers' compensation; compulsory third party insurance; superannuation/re-insurance contracts.

Courses: LW50, LW51

Credit Points: 24 **Contact Hours:** 2 per week

■ **LWN070 CREDIT FOR UQ SUBJECT 4**

See LWN032.

Courses: LW50, LW51

Credit Points: 12

■ **LWN071 CREDIT FOR UQ SUBJECT 5**

See LWN032.

Courses: LW50, LW51

Credit Points: 12

■ **LWN072 CREDIT FOR UQ SUBJECT 6**

See LWN034.

Courses: LW50, LW51

Credit Points: 24

■ **LWN075 INTERNATIONAL COMMERCIAL TRANSACTIONS**

This unit on international trade law addresses the legal problems that arise in the formation and operation of commercial transactions of an international nature. Its scope is largely confined to the sphere of private law. Topics covered include: sources of, and modern developments in, international trade law; harmonisation and unification of law; international contracts (characteristics, negotiating and drafting, choice of law); international sale of goods (trade terms, standard conditions, uniform law); carriage of goods by sea; payment in a documentary sale, and other financing mechanisms; marketing arrangements (agency, distributorship, subsidiary, joint venture).

Courses: LW50, LW51

Credit Points: 12

Contact Hours: 2 per week

Incompatible with: LWN023

■ **LWN076 INTERNATIONAL COMMERCIAL DISPUTES**

Legal issues regarding the resolution of commercial disputes in international trade. Mainly concerned with disputes in respect of international commercial relationships of a private law nature. Dispute resolution mechanisms (such as litigation, arbitration and alternative dispute resolution) are examined, and their effectiveness evaluated, in the light of the legal and practical realities in the international trade environment. Students are introduced to a range of commercial practices, national regulation, and international uniform rules, model laws and conventions.

Courses: LW50, LW51

Credit Points: 12

Contact Hours: 2 per week

Incompatible with: LWN023

■ **LWN077 LITIGATION – EVIDENCE**

This unit is focused on topics of current interest or difficulty in evidence and advocacy. Rules of admissibility in Queensland and federal courts are considered, as well as issues of trial and appellate advocacy. Participants will acquire an appreciation of the dynamics of the adversarial process, understanding of selected principles of admissibility and knowledge of key forensic skills such as examination and cross-examination of witnesses. This unit offers an opportunity for students to deepen and broaden their legal education in a way related directly to their professional needs.

Courses: LW50, LW51

Credit Points: 12

Contact Hours: 2 per week

Incompatible with: LWN052 pre 1995

■ **LWN078 ADVANCED CRIMINAL EVIDENCE & PROCEDURE**

This unit covers three core areas: (a) the rules of evidence and procedure in Queensland criminal courts as set out under the common law, the Evidence Act 1977 (Qld), the Criminal Code and related legislation; (b) the rules of evidence and procedure in criminal cases in the Federal Court as set out in the Evidence Act 1995 (Cth); and (c) the rules of evidence and procedure in the criminal courts of New South Wales as set out in the Evidence Act 1994 (NSW). Topics in all areas address both empirical rules and contemporary issues which present interest or difficulty.

Courses: LW50, LW51

Credit Points: 12

Contact Hours: 2 per week

■ LWN079 JOINT VENTURES

This unit examines certain major aspects of this subject including the nature and structure of joint ventures, negotiating and financing of joint ventures, foreign investment, taxation implications of joint ventures, government joint ventures, trade practices and intellectual property rights in joint ventures and dispute resolution between joint venture partners.

Courses: LW50, LW51

Credit Points: 12 Contact Hours: 2 per week

■ LWN080 SELECT ISSUES IN THE LAW OF OBLIGATIONS

This unit examines the phenomena which have led to the creation and assumption of legal obligations; the historical, socio-economic and political considerations underpinning the traditional categorisations; and the inter-relationship, and at times tension, between the traditional categorisations. In so doing the unit highlights those areas of categorisation which have received judicial re-consideration and those areas which may, or may not, in the foreseeable future receive a similar consideration.

Courses: LW50, LW51

Credit Points: 12 Contact Hours: 2 per week

■ LWN081 RESTITUTION II

This unit will continue the examination of the theoretical basis of restitutionary claims and defences which were defined in LWN017 Restitution I. Students will comprehensively examine the substantive law relating to certain restitutionary claims and defences as well as considering the scope and operation of the law of restitution in contemporary Australia and its relationship with torts, contract, equity and property. Topics covered include: legal compulsion, necessity, illegality, subrogation, tracing and restitutionary proprietary claims, restitution for wrongs, defences, and conflict of laws.

Courses: LW50, LW51

Prerequisite: LWN017

Credit Points: 12 Contact Hours: 2 per week

Incompatible with: Students who have studied both LWN059 and LWN017 pre-1996 are precluded from undertaking this unit

■ LWN082 INTELLECTUAL PROPERTY: LITIGATION

Topics covered include: the role of intellectual property litigation in protection of intellectual property rights; the overlap between intellectual property rights and consumer protection; jurisdiction of the courts under the Copyright Act, the Patents Act, the Trade Marks Act, the Registered Designs Act, the Circuit Layouts Act and the Plant Varieties Act, and the general law; the role of international conventions and arrangements in intellectual property litigation; parties to intellectual property litigation; appeals from administrative officers under the various Acts and from single judges; the particular requirements of Order 58 of the Federal Court Rules as they apply to intellectual property litigation; groundless threats; pre-emptive remedies; interlocutory remedies and steps; limitation periods; the use of the petty patent system and opposition proceedings as a tactic in patent litigation; cross-claims; trials; final relief; exclusive rights v. anti-competitive conduct.

Courses: LW50, LW51

Credit Points: 12 Contact Hours: 2 per week

■ LWN083 ESTATE PLANNING

This unit considers estate planning from three perspectives: estate growth/wealth creation, estate protection from exigencies such as death, disablement and bankruptcy and estate distribution, either inter vivos or on death. Strategies employed and issues to be considered within each of these elements will be covered and the inter-relationship between each element will also be highlighted.

Courses: LW50, LW51

Credit Points: 12 Contact Hours: 2 per week

■ LWN084 INTERNATIONAL MARINE POLLUTION LAW

The protection and preservation of the marine environment has developed into an important aspect of marine law. International conventions and agreements, combined with Commonwealth, state and territory legislation has resulted in a complex matrix of laws and practice. The subject is not being given the prominence in law studies that it now merits. The pollution of the sea is a major problem and a study of its legal regimes is beneficial towards addressing it.

Courses: LW50, LW51

Credit Points: 12 Contact Hours: 2 per week

■ LWN085 INTERNATIONAL LAW OF THE SEA

International law of the sea has always been of importance to island countries like Australia, but has taken an added importance with Australia's added maritime jurisdiction of the 200 n.m. exclusive economic zone under the United Nations Convention on the Law of the Sea 1982. The focus of this unit will be the development of the law of the sea and a study of the current issues, with particular emphasis on the Australian, Southeast Asian and Pacific Ocean areas.

Courses: LW50, LW51

Credit Points: 12 Contact Hours: 2 per week

■ LWN086 SELECTED ISSUES IN PRACTISING LAW

The face of legal practice is changing constantly. Today there are many influences upon the practice of law. This is a time of assessing and reassessing the needs of the legal profession and of the client. Therefore it is timely to consider some of these important and contemporary issues. This unit seeks to address selected and topical aspects of practising law in the wider context as well as day-to-day.

Courses: LW50, LW51

Credit Points: 12 Contact Hours: 2 per week

■ LWN087 CONTEMPORARY ISSUES IN TORTS

Advanced level study of contemporary issues in torts enables a detailed consideration of selected matters at a time of great change in this area of the law. The practical, theoretical and comparative analysis of the selected issues will extend understanding of this fundamental and significant part of general legal practice and the inter-relationship with contiguous fields of legal principle.

Courses: [HREF="/pubs/hbk96/courses/LW50.html">LW50, LW51](#)

Credit Points: 12 Contact Hours: 2 per week

■ LWN088 GOVERNMENT LAW, POLICY AND PRACTICE

This unit focuses on key aspects of the law and policy-making process surrounding the development of legislation and the operation of government, especially in Queensland. Topics covered include: the roles of key Queensland executive government bodies (e.g. OPC, JAG, Cabinet, Departments, etc.), corporatisation, Crown immunity issues, Queensland's 'fundamental legislative principles' (FLPs), and governmental trade practices liability.

Courses: LW50, LW51

Credit Points: 12 Contact Hours: 2 per week

■ LWN089 CURRENT LEGAL PROBLEMS AFFECTING SPORTS

Sport and the law is a growing area of legal practice. The inter-relationship of the sporting culture, commercialised activities and a wide range of relevant legal ar-

cas provides a unique mix for the study of many overlapping areas of law and social policy. Topics covered include: liability of sports organisations and participants for injury or damage; legislative and common law intrusion onto the sporting field; construction, operation and maintenance of sports facilities; the right to control and sanction sport participants; securing sponsorship and endorsement rights; sports marketing and the exploitation of the intellectual and personal property of teams and athletes; industrial relations and sport; broadcasting of sporting events; sports business and trade practices.

Courses: LW50, LW51
Credit Points: 12 **Contact Hours:** 2 per week

■ **LWN100 HONOURS DISSERTATION**

A dissertation by students enrolled in the Master of Laws by Coursework who have obtained 96 credit points with a GPA of 6 or better. The dissertation is between 20 000 and 30 000 words in length.

Courses: LW50, LW51 **Credit Points:** 48

■ **LWR001 THESIS**

The dissertation should make a notable contribution to professional knowledge and practice which may be in the form of new knowledge or significant original adaptation, application and interpretation of existing knowledge and practice.

Course: LW50 **Credit Points:** 36

■ **LWR002 THESIS**

See LWR001.

Course: LW50 **Credit Points:** 48

■ **LWR101 THESIS**

See LWR001.

Course: LW50 **Credit Points:** 12

■ **LWR102 THESIS**

See LWR001.

Course: LW50 **Credit Points:** 24

■ **LWS001 MEDICINE & THE LAW**

The impact of some important fields of law upon the medical profession and upon hospital staff, patients and visitors. Introduction to law and the legal system. The federal and state systems; general principles of the law of tort; principles of negligence; trespass; liability of hospitals; industrial law and industrial relations; workers' compensation; legal aspects of medical practice; medico-legal investigations; medical ethics. A consideration of emerging legal issues surrounding surrogate motherhood and test-tube babies. Relevant Commonwealth and Queensland legislation and regulations and court decisions.

Courses: LS85, NS48, PU48
Credit Points: 12 **Contact Hours:** 3 per week

■ **LWS005 LAW & NURSING**

Introduction to the Australian legal system; Commonwealth and state powers concerning health; consent and treatment/restraint of patients; negligence; the relationship between employer and employee; removal of patients from life support equipment and the law on euthanasia; abortion; transplantation of organs and tissue; medical records and confidentiality; control of poisons; the Coroners Act (Qld).

Courses: NS40, NS48
Credit Points: 8 **Contact Hours:** 3 per week

■ **LWS006 HEALTH ETHICS & THE LAW**

The legal issues associated with the matter of public health and an appreciation of the legal and ethical implications of the work done by health care professionals in this area. Topics include: introduction to the Australian legal system; tort law and its impact upon the public

health system; workplace health and safety legislation; medical records and confidentiality; criminal law and the health care profession; transplantation of organs and tissues; complaints against hospitals and health care professionals.

Courses: HL85, NS48, NS85, PU69, PU85
Credit Points: 12 **Contact Hours:** 3 per week

■ **LWS010 PUBLIC LAW**

This introduction to public law provides students with an understanding of the origins and nature of the parliamentary system of law and government in Australia and the manner in which public authority is organised and exercised. It examines the functions of the central institutions of government the Crown and Executive. The Parliament, the Judiciary and their relationship one with another. The role of state constitutions is dealt with as well as the organisation of government under the Australian Federal Constitution.

Course: IF64
Credit Points: 12 **Contact Hours:** 3 per week

■ **MAA251 STATISTICS & DATA PROCESSING**

A basic unit in statistics, including statistical terminology and organisation of data, elementary probability, binomial and normal distribution, standard statistical methods for analysing data, regression and correlation.

Courses: LS12, LS15, SC12
Credit Points: 8 **Contact Hours:** 3 per week

■ **MAB003 MATHEMATICS FOR SCIENCE & TECHNOLOGY 1**

Algebra: Complex numbers, Cartesian form, Argand diagram; determinants and matrices; solution of linear equations; elementary vector algebra. Differential calculus: functions of a single variable, limits, derivatives of standard functions, higher derivatives, series expansions, applications.

Courses: CE42, EE43, EE44, IF23, IF34, IF53, ME45, ME46, SC30
Credit Points: 6 **Contact Hours:** 3 per week

■ **MAB004 MATHEMATICS FOR SCIENCE & TECHNOLOGY 2**

Algebra: Complex numbers, polar and exponential forms, applications. Vector analysis: scalar and vector products, differentiation of vectors, applications. Differential calculus: hyperbolic functions, partial derivatives, total derivative, applications.

Courses: CE42, EE43, EE44, IF23, IF34, IF53, ME45, ME46, SC30
Credit Points: 6 **Contact Hours:** 3 per week

■ **MAB102 BASIC MATHEMATICS**

Algebra: factorising polynomials; index and logarithm laws; AP and GP: trigonometrical ratios; Pythagorean identities; graphs; sine rule and cosine rule; coordinate geometry; equations of lines and standard conics; introduction to differential calculus; curve sketching; Newton-Raphson method; elementary integration; definite and indefinite integrals; use of tables of integrals; Simpson's rule.

Courses: ED50, IF34, SC30
Credit Points: 12 **Contact Hours:** 4 per week
Incompatible with: A grade of Sound Achievement or higher in Senior Mathematics B (or equivalent)

■ **MAB103 INTRODUCTORY ENGINEERING MATHEMATICS**

Computational mathematics; algebra; circular functions, trigonometric functions; vector algebra: addition of vectors, unit vectors, scalar products; linear algebra: elementary matrix algebra, solution of linear equations; complex numbers: Cartesian form, addition, multiplication, modulus and argument, Argand diagram; differential

calculus: elementary functions, definite and indefinite integration.

Courses: CE31, CE42, EE43, EE44, IF23, IF54, IF56, ME35, ME45, ME46, PS47

Credit Points: 8 **Contact Hours:** 3 per week

■ MAB151 QUANTITATIVE TECHNIQUES

A basic mathematics unit with emphasis on differential and integral calculus, the interpretation of data and the application of numerical techniques.

Courses: PH38, PH90

Credit Points: 4 **Contact Hours:** 2 per week

■ MAB152 QUANTITATIVE METHODS

Organisation, analysis and interpretation of data; practical problems in basic calculus techniques; probability distributions; sampling; estimation; testing of hypotheses; regression and correlation.

Courses: PU42, PU44, PU45

Credit Points: 8 **Contact Hours:** 3 per week

■ MAB172 STATISTICAL METHODS

Organisation and analysis of data; use of computer packages in data analysis; probability and probability distributions; sampling theory; estimation; testing of hypotheses; regression and correlation.

Courses: BS50, IT20

Credit Points: 12 **Contact Hours:** 3 per week

■ MAB173 QUANTITATIVE METHODS

To enable students to use mathematical reasoning and skills to obtain solutions to financial, economic and general business problems. On completion, students should have an understanding of the types of problems amenable to a mathematical solution; they should be able to develop appropriate mathematical models and appreciate any limitations or assumptions and solutions to these models.

Courses: BS50, IF31

Credit Points: 12 **Contact Hours:** 3 per week

■ MAB177 MATHEMATICS FOR DATA COMMUNICATIONS

Provides the basic mathematical background required for the study of data communication; coding theory and cryptography.

Course: IT20

Credit Points: 12 **Contact Hours:** 3 per week

■ MAB178 MATHEMATICS FOR TELECOMMUNICATIONS

Fundamentals of probability and random processes as required for the modelling and mathematical analysis of data communication networks; queuing models and their applications in the study of telecommunication networks.

Course: IT20

Credit Points: 12 **Prerequisite:** MAB177
Contact Hours: 2 per week

■ MAB181 APPLIED MATHEMATICS FOR DESIGNERS 1

Applications of plane and solid geometry in design; revision of basic geometry; symmetry; construction and packing of solids; spherical geometry and its applications. Applications of trigonometry in design; revision of basic trigonometry; calculation of heights, distances, areas and volumes. Symmetric designs.

Course: BN30

Credit Points: 6 **Contact Hours:** 3 per week

■ MAB185 INTRODUCTION TO STATISTICS

Data and its presentation, qualitative reporting of graphical presentations; distributions: properties and parameters, normal probability plots; sampling: correlated versus independent observations, mean and other statistics, normal case; confidence intervals for means/proportions

and differences of means/proportions, pairing, tolerance limits, introduction to quality and SPC, variance; hypothesis testing, tests for means/proportions; basic concepts of experimentation, and ANOVA; introduction to regression.

Courses: CE31, ME35

Credit Points: 8 **Contact Hours:** 3 per week

■ MAB187 ENGINEERING MATHEMATICS 1A

Vector algebra: scalar and vector triple products, vector equation of a straight line; matrix algebra: determinants, inverse matrix; solution of systems of linear equations. Binomial and geometric series; exponential functions: expansion, natural logarithms; gradient of a curve, derivatives, trigonometric functions, Taylor series; implicit functions, log function, logarithmic and parametric differentiation, curve sketching. Definite integration: approximation of integrals, fundamental theorem of calculus, integration by parts, substitution, improper integrals.

Courses: CE31, CE42, EE43, EE44, IF23, IF54, IF56, ME45, ME46, ME85, PS47

Credit Points: 8 **Contact Hours:** 3 per week

■ MAB188 ENGINEERING MATHEMATICS 1B

Vector algebra: moments, forces, velocity, acceleration, polar coordinates, differentiation of scalar and vector products, grad; matrix algebra: eigenvalues, eigenvectors. Differentiation: Newton-Raphson method; hyperbolic functions, inverse functions; functions of several variables; partial derivatives, chain rule. Integration: double integrals, volume under a surface, polar coordinates; differential equations: solution of first order differential equations; applications in engineering.

Courses: CE31, CE42, EE43, EE44, IF23, IF52, IF54, IF56, ME35, ME45, ME46, PS47

Credit Points: 8 **Prerequisite:** MAB187

Contact Hours: 3 per week

■ MAB195 QUANTITATIVE METHODS 1

Applications of plane and solid geometry in design, revision of basic geometry; application of trigonometry in design; calculation of heights, distances, areas and volumes; applications of trigonometry to mechanics.

Course: BN30

Credit Points: 6 **Contact Hours:** 3 per week

■ MAB196 QUANTITATIVE METHODS 2

Data collection and analysis in design; introduction to statistics; use of computers in data analysis.

Course: BN30

Credit Points: 6 **Prerequisite:** MAB181
Contact Hours: 3 per week

■ MAB200 MATHEMATICS

Algebra; trigonometry; complex numbers; matrices and vectors; permutations and combinations; finite differences; exponential, logarithmic and trigonometric functions; calculus; conic sections.

Courses: CH32, ED50, IF34, IT20, SC30

Prerequisite: Sound Achievement in Senior Mathematics B (or equivalent) or MAB102

Credit Points: 12 **Contact Hours:** 4 per week

Incompatible with: Sound Achievement in Senior Mathematics C, MAB212

■ MAB212 MATHEMATICS 1

Vectors, algebra; matrices; solution of systems of linear equations. Differentiation; second and higher derivatives; exponential, trigonometric, hyperbolic and inverse functions. Logarithmic, implicit and parametric differentiation. Rates of change, maxima and minima, curve sketching, L'Hopital's rule. Definite and indefinite integrals, fundamental theorem of calculus. Integration by substitution and by parts. Improper integrals. Polar coordinates. May not be available in 1996.

Courses: CH32, ED50, IF34, IT20, SC30

Credit Points: 12 **Contact Hours:** 4 per week

Incompatible with: MAB200, MAB301

■ **MAB222 MATHEMATICS 2**

Areas, volumes, lengths of curves and surface areas. Simple improper integrals. Rotation of axes in the plane. Differentiation of vectors, simple kinematic applications. Series expansions of functions by Taylor and Maclaurin series; ratio test; approximations. Complex numbers; modulus, Argand diagram, exponential form; De Moivre's theorem; applications. Ordinary differential equations. First order: variables separable; exact linear. Second order: linear homogeneous differential equations with constant coefficients. Partial differentiation; geometrical interpretation, partial derivatives of higher order. May not be available in 1996.

Courses: ED50, IF34, SC30 **Prerequisite:** MAB212

Credit Points: 12 **Contact Hours:** 4 per week

Incompatible with: MAB301, MAB303

■ **MAB232 DISCRETE MATHEMATICS**

Combinatorics; logic; set theory; axiomatic systems; modular arithmetic; rings, integral domains, fields; finite groups; number theory; difference equations. May not be available in 1996.

Courses: ED50, IF34, IT20, SC30

Corequisite: MAB222

Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB237 STATISTICS**

The collection, presentation and features of statistical data. How to investigate, model and analyse the data and how to draw valid conclusions. Students study real data using computer packages where appropriate and are introduced to estimation, hypothesis testing, regression and analysis of variance.

Courses: CH32, ED50, IF34, SC30

Credit Points: 12 **Contact Hours:** 4 per week

Incompatible with: MAB347

■ **MAB251 MATHEMATICS 1**

Data handling; determinants and matrices; differentiation with applications; partial differentiation; integral calculus with applications; numerical methods.

Course: OP42

Credit Points: 8 **Contact Hours:** 4 per week

■ **MAB252 STATISTICS**

Organisation and analysis of data; probability and probability distributions; sampling theory; estimation; tests of hypothesis; regression and correlation.

Course: OP42 **Prerequisite:** MAB251

Credit Points: 4 **Contact Hours:** 2 per week

■ **MAB258 EXPERIMENTAL DESIGN**

Examination of experimental design and data analysis in optometry; topics include: goodness of fit tests and tests of independence using chi-square distribution; introduction to multiple regression; statistical quality control; analysis of variance, introduction to non-parametric methods.

Course: OP42 **Prerequisite:** MAB252

Credit Points: 4 **Contact Hours:** 2 per week

■ **MAB272 RESEARCH METHODS**

Students in the information management and information systems fields should have knowledge of a variety of techniques associated with collecting and analysing data, be capable of critical interpretation of survey research and be able to use data reduction techniques themselves. In addition to an introduction to descriptive statistics and statistical inference, this unit introduces historical and theoretical approaches and compares rationalisation with experimentation.

Course: IT20

Prerequisites: Completion of at least 60 credit points from the Information Management or Information Systems majors in IT20

Credit Points: 12 **Contact Hours:** 3 per week

■ **MAB299 MATHEMATICS FOR TECHNOLOGISTS**

Data handling and basic algebra, geometry and trigonometry. Introduction to statistics, organisation and analysis of data, probability and probability distribution; sampling theory; estimation; test of hypothesis; regression and correlation. Introduction to quantitative operation research methods applicable in solving economic and general business problems, including linear programming, transportation algorithm and decision trees.

Courses: CN41, CN43 **Prerequisites:** First year unit

Credit Points: 6 **Contact Hours:** 3 per week

■ **MAB301 CALCULUS & ANALYSIS A**

Levels of measurement and their relationship to particular operations with real numbers, accuracy and precision; basic algebraic, geometric and trigonometric results; introduction to the concepts of function, limits, continuity and monotonicity; elements of differential and integral calculus, associated theorems and analytical and numerical applications.

Courses: ED50, IF34, IF42, IF44, IF58, MA34, SC30

Prerequisite: At least Sound Achievement in Senior Mathematics C or MAB200 (which may be studied concurrently)

Credit Points: 12 **Contact Hours:** 4 per week

Incompatible with: MAB212, MAB222

■ **MAB303 ALGEBRA & ANALYSIS B**

Set theory, relations and functions; introduction to difference equations; infinite series; complex numbers; linear equations; matrices and determinants; vector spaces; eigenvalues and eigenvectors.

Courses: ED50, IF34, IF42, IF44, IF58, MA34, SC30

Corequisite: MAB301

Credit Points: 12 **Contact Hours:** 4 per week

Incompatible with: MAB212, MAB222

■ **MAB304 CALCULUS & VECTOR ALGEBRA**

First order and linear second order differential equations, simple applications; vector algebra; vector products; Euclidean spaces; vector calculus: space curves, line integrals; kinematics of a particle.

Courses: ED50, IF34, IF42, IF44, IF58, MA34, SC30

Prerequisite: MAB301

Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB321 COMPUTATIONAL MATHEMATICS 1**

Sources of errors; computer arithmetic; computations with polynomials, standard functions, recurrence relations and series; computations with data, searching, sorting, sums and means; computations with arrays; use of calculators, programming languages and graphical/mathematical software.

Courses: ED50, IF34, IF42, IF44, IF58, MA34, SC30

Corequisites: MAB301 or MAB212

Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB342 MATHEMATICS OF FINANCE**

Interest rates; solution of problems in compound interest; annuities; applications of annuities; capital redemption policies; valuation of securities; introduction to basic modelling techniques.

Courses: ED50, IF34, IF58, MA34, SC30

Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB347 STATISTICS IA**

Collection and representation of data, parameters and statistics; sampling; sample mean and variance; statistical estimation and tests of hypotheses based on the nor-

mal, t, F and chi-square distributions; control charts; linear regression; introduction to experimental design and ANOVA.

Courses: ED50, IF34, IF42, IF44, IF58, IT20, MA34, SC30

Credit Points: 12 **Contact Hours:** 4 per week
Incompatible with: MAB237

■ **MAB348 STATISTICS 1B**

Probability; conditional probability; random variables and probability distributions; binomial, Poisson, exponential, uniform, normal; expected values and moments, sums and differences of random variables; q-q plots, correlation, multiple regression; power; goodness-of-fit; introduction to non-parametric tests.

Courses: BS50, ED50, IF34, IF42, IF44, IF58, IT20, MA34, SC30

Prerequisites: MAB347 or credit in MAB237

Corequisites: MAB301

Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB422 TOPICS IN MATHEMATICS**

Topics in geometry, recreational mathematics, and the history of mathematics, including fractals, iterative maps, map projections, Euclidean constructions, tessellations and mathematical puzzles

Courses: ED50, IF34, IF71, SC30

Prerequisite: MAB222 or MAB301, MAB303

Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB432 MATHEMATICS 3**

Laplace transforms; ordinary differential equations of first and higher order; multivariable calculus. May not be available after 1996.

Course: SC30

Prerequisite: MAB222

Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB452 MATHEMATICS 4**

Partial differential equations, Complex analysis; Cauchy-integral theorem, Laurent-series; residue theorem. Fourier series and Fourier transforms. Vector analysis, Green's theorems, Stokes' theorem, the Divergence theorem. Applications to physics. May not be available after 1996.

Course: SC30

Prerequisite: MAB432

Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB485 ENGINEERING MATHEMATICS 2C**

Differential equations, Laplace transform methods; orthogonal functions; solution of systems of linear equations; vector analysis; functions of a complex variable; limits, continuity; exponential, circular, hyperbolic and logarithmic functions; Cauchy-Riemann equations; Fourier transforms.

Courses: EE44, IF23

Prerequisites: MAB187, MAB188

Credit Points: 8 **Contact Hours:** 3 per week

■ **MAB486 ENGINEERING MATHEMATICS 2D**

Probability: events and sample spaces; independence; discrete random variables and probability functions; continuous random variables; mean, variance; examples of distributions. Partial differential equations: the simultaneous partial differential equations of Maxwell; the three-dimensional wave equation. Laurent's theorem. Residue theory, application to complex integration.

Courses: EE44, IF23

Prerequisite: MAB485

Credit Points: 8 **Contact Hours:** 3 per week

■ **MAB487 ENGINEERING MATHEMATICS 2A**

Solution of large scale systems of linear equations by direct and indirect methods; solution of second order differential equations with constant coefficients; numerical solution of differential equations; polynomial interpolation.

Courses: CE42, EE43, IF56, ME45, ME46

Prerequisites: MAB187, MAB188

Credit Points: 8

Contact Hours: 3 per week

■ **MAB488 ENGINEERING MATHEMATICS 2B**

Quadrature, determination of eigenvalues and eigenvectors of large scale linear systems, power method, inverse iteration, acceleration techniques; interpolation by cubic splines; Fourier series and harmonic analysis; convergence of infinite series.

Courses: EE43, IF56, ME45, ME46

Prerequisite: MAB487

Credit Points: 8

Contact Hours: 3 per week

■ **MAB494 SURVEY MATHEMATICS 1**

Spherical trigonometry; definition of sphere, circles on sphere and spherical triangles; columnar, antipodal and polar triangles; sine, cosine and half-angle formulae, Napier's and Delembre's analogies; solution of spherical triangles, spherical excess, area of spherical triangle; relation between plane and spherical trigonometry. Differential calculus; Taylor and Maclaurin series for functions of a single variable; extension to functions of several variables; maxima and minima with constraints, Lagrange multipliers; positional astronomy.

Course: IF54, PS47

Prerequisite: MAB188

Credit Points: 6

Contact Hours: 3 per week

■ **MAB496 SURVEY MATHEMATICS 2**

Linear algebra: systems of linear equations in two and three dimensions, the no solution, many solution and unique solution cases, geometric interpretation; extension of concepts to large scale systems, matrix formulation. Matrices: elementary matrix algebra, equality, addition, multiplication by a scalar, matrix products, inverse matrix, transpose matrix; types of matrix, elementary matrices, identity matrices, singular and non-singular matrices, symmetric matrices; orthogonal matrices; reduction of a matrix to echelon form. Eigenvalue problem: solution of characteristic equation in two and three dimensions, corresponding eigenvectors; reality of eigenvalues in symmetric cases; quadratic forms, principal axes; geometrical applications, (classification of conics), extension of concepts to large scale system.

Courses: IF54, PS47

Prerequisite: MAB494

Credit Points: 6

Contact Hours: 3 per week

■ **MAB601 MULTIVARIABLE CALCULUS**

Differentiation, extrema; double integrals, triple integrals, surface integrals; functions of a complex variable, analyticity, complex integration.

Courses: ED50, IF34, IF42, IF44, IF58, MA34, SC30

Prerequisites: MAB303, MAB304

Credit Points: 12

Contact Hours: 4 per week

■ **MAB602 VECTOR FIELD THEORY**

Vector analysis; scalar and vector fields; line integrals; surface integrals; differential field operators; the integral properties of fields. Tensor analysis; curvilinear coordinates; application to potential theory; hydrodynamic theory, electromagnetic theory; calculus of variations; functionals; Euler's differential equation; problems with subsidiary conditions.

Courses: IF42, IF44, MA34, SC30

Prerequisite: MAB601

Credit Points: 12

Contact Hours: 4 per week

■ **MAB612 DIFFERENTIAL EQUATIONS**

Mathematical modelling with differential equations; wellposedness of first order differential equations and graphical methods; theory of linear systems and nth order differential equations, solutions for constant coefficients; series; Laplace Transform; boundary value problems; Fourier series; separation of variables method for partial differential equations.

Courses: ED50, IF34, IF42, IF44, IF58, MA34 SC30

Prerequisites: MAB303, MAB304
Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB618 COMPUTATIONAL MATHEMATICS 2**

Linear equations; numerical solution of a single non-linear equation; interpolation; quadrature; numerical solution of a single first order differential equation.

Courses: IF42, IF44, IF58, IT20, MA34, SC30
Prerequisite: MAB321
Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB620 FINITE MATHEMATICS**

Logic; axioms, proofs, truth-table decidability; set theory, relations, functions; number theory; primes and divisibility, Fermat's and Euler's theorems; greatest common divisor, Euclid's algorithm; primitive roots; arithmetic functions; abstract algebra: Boolean algebras, groups, rings, fields; automata: finite state machines.

Courses: ED50, IF58, IT20, MA34, SC30
Prerequisite: MAB303
Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB630 LINEAR ALGEBRA & ITS APPLICATIONS**

Concrete and abstract vector spaces; matrices; linear systems and determinants; inner products and the projection theorem; linear operators on a unitary space; eigenvalues; applications.

Courses: IF34, IF42, IF44, IF58, ED50, IT20, MA34, SC30

Prerequisite: MAB303
Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB632 MATHEMATICAL MODELLING**

Models are taken mainly from the areas of medicine and biology, including cancer research and population growth, and from mechanics applied to sport. Emphasis is on the mathematical modelling and not on the development of new mathematical techniques.

Courses: IF34, IF42, IF58, ED50, MA34, SC30
Prerequisites: MAB303, MAB304 or MAB212, MAB222
Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB637 OPERATIONS RESEARCH IA**

Linear programming; replacement, maintenance and reliability; project scheduling techniques; simulation.

Courses: ED50, IF34, IF42, IF44, IF58, IT20, MA34, SC30

Prerequisites: CSB155, MAB303, MAB347
Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB638 OPERATIONS RESEARCH IB**

Transportation, transshipment and assignment models; sensitivity analysis and duality; inventory models; introduction to queuing theory.

Courses: IF34, IF42, IF58, IT20, MA34, SC30
Prerequisite: MAB637
Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB641 ACTUARIAL MATHEMATICS**

Mathematics of finance; fixed interest securities, pure endowments and life annuities; assurances; policy values; mortality laws, population projections, superannuation, introduction to general insurance.

Courses: IF34, IF58, MA34, SC30
Prerequisites: MAB301, MAB342
Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB642 METHODS OF MATHEMATICAL ECONOMICS**

Comparative static analysis; matrices and economic theory; optimisation theory and its application in economics.

Courses: IF34, IF58, MA34, SC30

Prerequisites: MAB301, MAB303
Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB647 STATISTICS 2A**

Bivariate distributions; conditional distributions; covariance; moment generating functions; joint mgf's and their uses in iid cases; transformations; sampling distributions; sampling from finite populations; introductory Markov chains; time series and auto correlation; convergence ideas; order statistics.

Courses: BS50, ED50, IF34, IF42, IF44, IF58, MA34, SC30

Prerequisites: MAB348, MAB301

Corequisite: MAB303
Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB648 STATISTICS 2B**

Single and multiple regression analysis, prediction and estimation; use of Minitab package, residual plots; blocking, 2 and 3 factor designs, general theory for 2k designs, additive and interaction models; orthogonal contrasts.

Courses: BS50, ED50, IF34, IF42, IF44, IF58, MA34, SC30

Prerequisite: MAB348

Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB795 SURVEY MATHEMATICS 3**

Transformation in three dimensions: central projection, the near parallel case. Numerical analysis: propagation of errors, solution of nonlinear equations. Approximation and interpolation. Solution of simultaneous linear equations, Gaussian elimination, compact methods, Choelsky, iterative methods.

Courses: IF52, IF54, PS47 **Prerequisite:** MAB496
Credit Points: 6 **Contact Hours:** 3 per week

■ **MAB893 ENGINEERING MATHEMATICS 3**

Data analysis in engineering contexts with emphasis on real data and use of computer packages; estimation, testing, SPC, regression, ANOVA, reliability.

Courses: CE42, EE43, EE44, IF23, IF54, ME45, ME46, PS47

Prerequisites: MAB187, MAB188

Credit Points: 8 **Contact Hours:** 3.5 per week

■ **MAB894 ENGINEERING MATHEMATICS 4**

The simultaneous partial differential equations of Maxwell; the three-dimensional wave equation; vector analysis; mathematical problems involving Maxwell's equations; complex variable; Cauchy-Riemann equations; Laurent series.

Courses: EE43, EE44, IF23 **Prerequisite:** MAB493
Credit Points: 6 **Contact Hours:** 3 per week

■ **MAB906 TOPICS IN ANALYSIS**

Convergence in \mathbb{R} ; uniform convergence; measure theory; measurable sets and functions; Lebesgue integrals; metric spaces, contraction mapping principle; normed and Banach spaces, dual spaces and linear operators; Hilbert spaces, O_N basis, self-adjoint operators.

Courses: IF34, IF44, IF49, IF58, MA34, SC30, SC60, SC80

Prerequisite: MAB601

Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB907 STATISTICS 3A**

Methodology and theory of statistical inference; likelihood and its uses; large sample results, exponential family and its importance; statistical methodology for all linear models; diagnostics and assessing assumptions; introduction to generalised linear models.

Courses: IF34, IF42, IF44, IF58, MA34, SC30
Prerequisites: MAB647, MAB648, MAB303

Credit Points: 12 **Contact Hours:** 4 per week

■ MAB908 STATISTICS 3B

Experimental design; response surfaces; optimal design; transformations, diagnostics, influential observations, some EDA, likelihood, deviance.

Courses: IF34, IF42, IF44, IF58, MA34, SC30

Prerequisite: MAB648

Credit Points: 12 Contact Hours: 4 per week

■ MAB911 COMPUTATIONAL MATHEMATICS 3A

Zeros of polynomials; solution of special types of matrix systems by direct methods; matrix and vector norms, eigenvalues and eigenvectors; solutions to systems of linear equations by indirect methods; solution of non-linear equations; ordinary differential equations (ODEs); the eigenvalue problem.

Courses: IF42, IF44, IF58, MA34, SC30

Prerequisite: MAB618 Corequisite: MAB630

Credit Points: 12 Contact Hours: 4 per week

■ MAB912 CONTINUUM MODELLING

Revision of elementary vector analysis; vector field theory; curvilinear coordinates; mathematical models of fluid motion including circulation and vorticity; Bernoulli equation and applications; incompressible potential flow; equations of motion and some exact solutions of the Navier-Stokes equations; introduction to the use of a computational fluid dynamics package, FLU-ENT.

Courses: IF42, IF44, IF58, MA34, SC30, SC60

Prerequisites: MAB601, MAB612

Credit Points: 12 Contact Hours: 4 per week

■ MAB913 COMPUTATIONAL MATHEMATICS 3B

Hilbert spaces; the projection theorem; application to discrete polynomial and trigonometric approximation; Legendre polynomials; Gaussian quadrature; Chebyshev polynomials; Chebyshev approximation. Reduction of a matrix to upper Hessenberg form by similarity transformations, orthogonal reductions, Givens and Householder methods, determination of eigen-systems by the QR algorithm, emphasis on symmetric matrices. Stability analyses for IVPs, types of instability, inherent and induced, partial instability. Partial differential equations (PDEs)

Courses: IF42, IF44, IF58, MA34, SC30, SC60, SC80, IF49

Prerequisite: MAB911

Credit Points: 12 Contact Hours: 4 per week

■ MAB927 OPERATIONS RESEARCH 2A

Algorithms of linear programming; integer and mixed integer programming; non-linear programming; dynamic programming; heuristic methods.

Courses: IF34, IF42, IF58, MA34, SC30

Prerequisite: MAB638

Credit Points: 12 Contact Hours: 4 per week

■ MAB928 OPERATIONS RESEARCH 2B

Simulation; queuing theory; decision analysis; implementation in operations research.

Courses: IF34, IF42, IF58, MA34, SC30

Prerequisite: MAB637

Credit Points: 12 Contact Hours: 4 per week

■ MAB929 TIME SERIES & STATISTICAL FORECASTING

Fundamentals of time series analysis; time series models; non-stationary processes; seasonal ARIMA models; exponential smoothing; transfer function analysis; vector autoregression; combined forecasts; state-space models and the Kalman filter.

Courses: IF34, IF42, IF44, IF58, MA34, SC30, SC60, SC80, IF49

Prerequisites: MAB601, MAB647, MAB648

Credit Points: 12 Contact Hours: 4 per week

■ MAB933 MATHEMATICAL BIOLOGY

Population ecology, using both discrete and continuous models; predator-prey interactions; enzyme kinetics; epidemics and developmental biology.

Courses: IF34, IF58, MA34, SC30

Prerequisites: MAB601, MAB612, MAB632

Credit Points: 12 Contact Hours: 4 per week

■ MAB941 MATHEMATICAL MODELLING IN ECONOMICS

Differential and difference equations in economic dynamics; multi-market equilibrium; equilibrium of dynamic macroeconomic models; stability; optimal control theory.

Courses: IF34, IF58, MA34, SC30

Prerequisite: MAB642

Corequisite: MAB601

Credit Points: 12 Contact Hours: 4 per week

■ MAB942 OPTIMISATION METHODS

Numerically based algorithms for function optimisation and non-linear equation solving; classical methods of optimising non-linear functions with non-linear inequality constraints; global optimisation strategies.

Courses: IF34, IF42, IF44, IF58, MA34, SC30, SC80

Prerequisites: MAB601, MAB618

Credit Points: 12 Contact Hours: 4 per week

■ MAB960 PROJECT WORK

Projects vary in nature and may involve the collection and evaluation of mathematical techniques in some field of interest or the formulation of a problem of interest and the derivation of a solution. Practical community/industry orientated projects are encouraged. Each project is undertaken by a student, or group of students, and is supervised by a member of staff who provides guidance throughout the duration of the project.

Courses: IF34, IF58, MA34, SC30

Prerequisites: Successful completion of at least 192 credit points including at least two units from List D of the course requirements

Credit Points: 12 Contact Hours: 4 per week

■ MAB970 PROBABILITY THEORY & STOCHASTIC PROCESSES

Probability measures, conditional probability; distributions and random variables. Convergence of random variables; strong and weak laws of large numbers; central limit theorems. Markov processes: birth and death, queues; epidemics; inference. Point processes: marked point processes; filtered processes; inference, simulation. Branch process.

Courses: IF34, IF44, IF58, MA34, SC60, SC30, SC80, IF49

Prerequisite: MAB647

Credit Points: 12 Contact Hours: 4 per week

■ MAB971 ADVANCED MATHEMATICS OF FINANCE

Background to investment, investment objectives and philosophy; pricing yields and analysis of financial transactions; operations of futures and options markets. Mathematical aspects of pricing derivative securities.

Courses: IF34, IF58, MA34, SC30, SC60, SC80

Prerequisite: MAB641

Credit Points: 12 Contact Hours: 4 per week

■ MAB973 PARTIAL DIFFERENTIAL EQUATIONS

Derivation of first and second order partial differential equations; solution of partial differential equations by characteristics, separation of variables and Laplace and Fourier transforms; a study of Schrodinger's wave equation.

Courses: IF34, IF42, IF44, IF58, MA34, SC30, SC60, SC80, IF49

Prerequisites: MAB601 or MAB602, MAB612

Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB974 SAMPLING & SURVEY TECHNIQUES**

Random sampling; estimates; design of questionnaires; data quality and errors in surveys; systematic, cluster and double sampling plans; imputation techniques; alternatives to household surveys.

Courses: IF34, IF42, IF58, MA34, SC30, SC60, SC80

Prerequisites: MAB647, MAB648

Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB975 ORDINARY DIFFERENTIAL EQUATIONS & CHAOS**

Ordinary differential equations; eigenvalues of systems of ordinary differential equations; system stability using phase plane portraits; bifurcations; chaotic systems; analytic and numerical solution of equations describing systems with singular and chaotic behaviour; iterative maps; Mandelbrot and Julia-type fractals.

Courses: IF44, SC60, SC80, IF49

Prerequisites: MAB601, MAB612, MAB911

Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB976 RELIABILITY & SURVIVAL ANALYSIS**

Failure rates; life distributions and inference; extreme values; fitting tails; flood data; IFR, NBU; system reliability; censored sampling; Cox's proportional hazards model; competing hazards.

Courses: SC60, SC80, IF49

Prerequisites: MAB647, MAB648

Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB977 SCHEDULING & NETWORKS**

Inventory systems, production planning and scheduling; aggregate planning and master scheduling, requirement planning, LP, LDR and SDR techniques. Scheduling problems, sequencing problems, flow-shop and job shop scheduling problems. Network flows.

Courses: SC60, SC80

Prerequisites: MAB927, MAB928

Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB978 STATISTICAL SIGNAL PROCESSING & IMAGE ANALYSIS**

Signal processing; time domain: Kalman filtering and prediction. Frequency domain: spectral representation of stationary processes. Inference for the spectrum of a stationary process. The cross spectrum. Spectral representation of multivariate stationary time series. Prediction in the frequency domain. Statistical image analysis: spatial processes. Regression and spatial auto-correlation. Two dimensional spectral analysis, two dimensional filtering and image enhancement. Image compression.

Courses: IF44, SC60, SC80, IF49

Prerequisite: MAB929

Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB979 STATISTICAL MODELLING & DATA ANALYSIS**

Robust procedures and principles: influence function; robust estimation; simulation studies; M-estimation. Distribution theory of statistics based on ranks. Robust regression. EDA; graphics; model choice, assessment and fitting: distributional families used in data analysis, inference studies and simulations; transformations, including Box-Cox. Outliers.

Courses: SC60, SC80, IF49

Prerequisites: MAB601, MAB907

Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB980 STOCHASTIC PROCESSES & APPLICATIONS**

Gaussian processes; Brownian motion; diffusions; stochastic equations; martingale; random walks; central limit theorems; epidemic models; queuing models; stochastic compartment models; extreme value theory for stochastic processes.

Courses: SC60, SC80, IF49

Prerequisites: MAB970 or (MAB906, MAB929)

Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB981 APPLIED STATISTICAL INFERENCE**

Modern approaches to data analysis and inference; estimating equations and their generalisation; applications of these methods; likelihood techniques, analytical and numerical methods; Bayesian techniques and computational methods; applications. Sample reuse methods (bootstrapping, etc.)

Courses: SC60, SC80, IF49

Prerequisites: MAB630, MAB907, MAB908

Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB984 ACTUARIAL STATISTICS**

Distribution theory; actuarial models and data; financial stochastic models and their use in problem-solving; credibility, utility and risk theory; loss and ruin models; premium analysis.

Courses: SC60, SC80

Prerequisite: MAB907

Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB985 COMPUTATIONAL MATHEMATICS 4**

The diffusion equation, finite difference methods, DuFort-Frankel and Crank-Nicholson methods, alternating direction methods; stability considerations. Elliptic boundary value problems, finite difference methods. Hyperbolic type equations, use of finite differences, method of characteristics. Use of software packages.

Courses: SC60, SC80, IF49

Prerequisite: MAB911

Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB986 MATHEMATICAL MODELLING OF INDUSTRIAL PROCESSES**

Solution of the steady/unsteady heat conduction equation with: variable thermal conductivity, different types of boundary conditions, irregular boundaries, moving interfaces, eg. solidification, non-linear forms, eg. natural convection, point sources. Derivation and discussion of the viscous fluid flow equations: primitive form of equations, stream function and vorticity transport form, conservative and non-conservative forms, stability, solving the equations numerically, boundary conditions.

Courses: SC60, SC80, IF49

Prerequisites: MAB973, MAB601, MAB913

Corequisite: MAB985

Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB987 OPTIMISATION OF CONTROLLED PROCESSES**

Calculus of variations, Lagrange formulation, Mayer formulation, Bolza formulation, constraints, corner conditions, transversal conditions. Pontryagin's maximum principle. Relationship of the above to dynamic programming. Practical applications of the above to: design of optimal control strategies, time optimal control, optimal continuous scheduling.

Courses: SC60, SC80, IF49

Prerequisites: MAB601, MAB612

Credit Points: 12 **Contact Hours:** 4 per week

■ **MAB989 PROJECT**

Project and thesis component of Honours course (SC60).

Course: SC60

Corequisite: Approved Honours program

Credit Points: 36

■ MAN001 READING COURSE 1

Provides the candidate with the appropriate background at an advanced level necessary for the completion of a research program.

Course: SC80

Credit Points: 8

■ MAN002 READING COURSE 2

See MAN001.

Course: SC80

Credit Points: 12

■ MAN009 EXPERIMENTAL DESIGN AND STATISTICAL ANALYSIS

The development of further statistical understanding and techniques for researchers in other areas.

Courses: AT22, BN71, BN72, BN73, BS81, BS83, BS84, BS85, BS87, CE74, CN77, CS36, ED11, ED12, ED13, EE75, EE78, HL50, HL52, HL58, HL88, IF49, IS50, IT84, LS85, ME76, NS64, NS85, PH80, PU65, PU69, SC80

Prerequisites: At least one undergraduate statistics unit
Credit Points: 12 Contact Hours: 4 per week

■ MAN012 ADVANCED STUDIES

Advanced studies in quality management concepts and techniques with emphasis on the application of statistics.

Course: SC60

Prerequisites: Permission of the Head of School

Credit Points: 12

Contact Hours: 4 per week

■ MAN120 QUANTITATIVE SYSTEMS ANALYSIS

The use of quantitative models in the solution of problems for quality systems; model formulation, inventory systems, production planning and scheduling and simulation.

Course: IF66

Credit Points: 6

Contact Hours: 3 per week

■ MAN210 DESIGNED EXPERIMENTS FOR QUALITY IMPROVEMENTS

The principles underlying the design of experiments; a practical approach explains the procedures used, with emphasis on the use of robust techniques for industrial experimentation and explanatory studies.

Course: IF66

Credit Points: 6

Contact Hours: 3 per week

■ MAP111 STATISTICAL METHODS IN QUALITY

Describing variation; boxplot, histogram, estimation of process parameters, misuse of measures. Normal distribution; application to quality phenomena, probability paper. Important distributions for describing quality-related phenomena by attribute; hypergeometric, binomial, Poisson, approximations. Sampling distributions; interval estimation for normal and binomial, test of hypothesis, consumer and supplier risks, tests for binomial parameter and process mean, tests for comparing process means, paired data and independent samples.

Course: IF69

Credit Points: 6

Contact Hours: 3 per week

■ MAP212 STATISTICAL QUALITY CONTROL

Control chart concept; variable charts for location and dispersion, pattern analysis, interpretation. Process capability; natural tolerance, capability index. Modified control charts. Attribute charts; p, c and u charts. Cusum technique; variable data, procedures, V mask, decision interval, application to attribute data. Attribute batch sampling; OC curve, sampling plans (single, double, multiple, sequential), switching rules. Rectifying inspection; Dodge Romig schemes, LTPD. Sampling by variables; procedures, sampling plans, inspection rules.

Course: IF69

Credit Points: 12

Contact Hours: 3 per week

■ MAP222 QUALITY IMPROVEMENT

Flow charts; deployment, layout, top down. Pareto analysis; stratified data, frequency versus cost. Cause and effect diagram; dispersion analysis, process classification. Correlation analysis; scattergram, percentage variation explained, several predictors. Affinity diagrams, etc. Decision making techniques; brainstorming, multivoting, nominal group technique. Quality improvement teams and quality circles. Quality improvement roadmaps; project identification, improvement plan, strategies, PDCA cycle, seven-step improvement process, team building.

Course: IF69

Credit Points: 12

Contact Hours: 3 per week

■ MAS090 MATHEMATICS

This intensive unit is aimed at providing an appropriate background for those undertaking tertiary courses in science, business or other areas which require competence in certain mathematical areas. Topics include: algebra, analytical geometry, trigonometry, differential and integral calculus, matrices, statistics. The treatment assumes some initial knowledge of basic algebra, such as manipulation of indices and factorisation, and elementary trigonometry at a level equivalent to Year 10 Advanced Mathematics.

Course: BN10

Credit Points: 6 per semester

Contact Hours: 3 per week

■ MDB300 TEACHING IN THE INFORMATION AGE

The impact of information technology on education; the concept of an information society; how what is defined as knowledge is contested and changed by information technology; strategies for learning and teaching using information technology. Practical skills using computer hardware and software communication technology and multimedia are developed with a view to appropriate implementation within the curriculum.

Courses: ED37, ED50, ED51, ED52, ED54

Credit Points: 12

Contact Hours: 3 per week

■ MDB325 BIOLOGY CURRICULUM STUDIES 1

The nature of the curriculum area/discipline and its role and contribution as a medium for education; introduction to relevant syllabuses and curriculum documents; lesson and curriculum unit planning activities; and teaching strategies designed to promote a range of learning experiences in selected curriculum areas.

Courses: ED50, ED54

Prerequisites: Normally the completion of 48 credit points in each relevant discipline area.

Credit Points: 12

Contact Hours: 3 per week

■ MDB326 BIOLOGY CURRICULUM STUDIES 2

Curriculum development within the context of contemporary policies, frameworks and agencies; general principles of measurement, assessment and evaluation; teaching and learning strategies; and issues and directions in curriculum development.

Courses: ED50, ED54

Prerequisite: MDB325

Credit Points: 12

Contact Hours: 3 per week

■ MDB327 CHEMISTRY CURRICULUM STUDIES 1

The nature of the curriculum area/discipline and its role and contribution as a medium for education; introduction to relevant syllabuses and curriculum documents; lesson and curriculum unit planning activities; and teaching strategies designed to promote a range of learning experiences in selected curriculum areas.

Courses: ED50, ED54

Prerequisites: Normally the completion of 48 credit points in each relevant discipline area.

Credit Points: 12

Contact Hours: 3 per week

■ MDB328 CHEMISTRY CURRICULUM STUDIES 2

Curriculum development within the context of contemporary policies, frameworks and agencies; general principles of measurement, assessment and evaluation; teaching and learning strategies; and issues and directions in curriculum development.

Courses: ED50, ED54 Prerequisite: MDB327
Credit Points: 12 Contact Hours: 3 per week

■ MDB329 COMPUTING CURRICULUM STUDIES 1

The nature of the curriculum area/discipline and its role and contribution as a medium for education; introduction to relevant syllabuses and curriculum documents; lesson and curriculum unit planning activities; and teaching strategies designed to promote a range of learning experiences in selected curriculum areas.

Courses: ED50, ED54, IT20
Prerequisites: Normally the completion of 48 credit points in each relevant discipline area.
Credit Points: 12 Contact Hours: 3 per week

■ MDB330 COMPUTING CURRICULUM STUDIES 2

Curriculum development within the context of contemporary policies, frameworks and agencies; general principles of measurement, assessment and evaluation; teaching and learning strategies; and issues and directions in curriculum development.

Courses: ED50, ED51, ED52, ED54, ED37
Prerequisite: MDB329
Credit Points: 12 Contact Hours: 3 per week

■ MDB331 EARTH SCIENCE CURRICULUM STUDIES 1

The nature of the curriculum area/discipline and its role and contribution as a medium for education; introduction to relevant syllabuses and curriculum documents; lesson and curriculum unit planning activities; and teaching strategies designed to promote a range of learning experiences in selected curriculum areas.

Courses: ED50, ED54
Prerequisites: Normally the completion of 48 credit points in each relevant discipline area.
Credit Points: 12 Contact Hours: 3 per week

■ MDB332 EARTH SCIENCE CURRICULUM STUDIES 2

Curriculum development within the context of contemporary policies, frameworks and agencies; general principles of measurement, assessment and evaluation; teaching and learning strategies; and issues and directions in curriculum development.

Courses: ED50, ED54 Prerequisite: MDB331
Credit Points: 12 Contact Hours: 3 per week

■ MDB333 MATHEMATICS CURRICULUM STUDIES 1

The nature of the curriculum area/discipline and its role and contribution as a medium for education; introduction to relevant syllabuses and curriculum documents; lesson and curriculum unit planning activities; and teaching strategies designed to promote a range of learning experiences in selected curriculum areas.

Courses: ED50, ED54
Prerequisites: Normally the completion of 48 credit points in each relevant discipline area.
Credit Points: 12 Contact Hours: 3 per week

■ MDB334 MATHEMATICS CURRICULUM STUDIES 2

Curriculum development within the context of contemporary policies, frameworks and agencies; general principles of measurement, assessment and evaluation; teaching and learning strategies; and issues and directions in

curriculum development.

Courses: ED50, ED54 Prerequisite: MDB333
Credit Points: 12 Contact Hours: 3 per week

■ MDB335 PHYSICS CURRICULUM STUDIES 1

The nature of the curriculum area/discipline and its role and contribution as a medium for education; introduction to relevant syllabuses and curriculum documents; lesson and curriculum unit planning activities; and teaching strategies designed to promote a range of learning experiences in selected curriculum areas.

Courses: ED50, ED54
Prerequisites: Normally the completion of 48 credit points in each relevant discipline area.
Credit Points: 12 Contact Hours: 3 per week

■ MDB336 PHYSICS CURRICULUM STUDIES 2

Curriculum development within the context of contemporary policies, frameworks and agencies; general principles of measurement, assessment and evaluation; teaching and learning strategies; and issues and directions in curriculum development.

Courses: ED50, ED54 Prerequisite: MDB335
Credit Points: 12 Contact Hours: 3 per week

■ MDB337 SCIENCE CURRICULUM STUDIES 1

The nature of the curriculum area/discipline and its role and contribution as a medium for education; introduction to relevant syllabuses and curriculum documents; lesson and curriculum unit planning activities; and teaching strategies designed to promote a range of learning experiences in selected curriculum areas.

Courses: ED50, ED54
Prerequisites: Normally the completion of 48 credit points in each relevant discipline area.
Credit Points: 12 Contact Hours: 3 per week

■ MDB338 SCIENCE CURRICULUM STUDIES 2

Curriculum development within the context of contemporary policies, frameworks and agencies; general principles of measurement, assessment and evaluation; teaching and learning strategies; and issues and directions in curriculum development.

Courses: ED50, ED54 Prerequisite: MDB329
Credit Points: 12 Contact Hours: 3 per week

■ MDB339 MATHEMATICS EDUCATION

Key concepts and skills in the domains of per cents, rate, ratio, chance and data, pre-algebra and geometry. Focus on developing appropriate teaching episodes within these domains. Special emphasis on the teacher as 'sense-maker'.

Course: ED51 Prerequisite: MDB302
Credit Points: 12 Contact Hours: 3 per week

■ MDB340 MATHEMATICS & TECHNOLOGY EDUCATION

Builds on the understandings developed in MDB302 and MSB339. Exploration of issues concerned with the teaching of measurement and mathematical problem solving; investigation of how information technology can be used to facilitate the development of high-level learning skills in mathematics and other areas in the primary school.

Course: ED51 Prerequisites: MDB302, MDB339
Credit Points: 12 Contact Hours: 3 per week

■ MDB341 SCIENCE EDUCATION

The role of particular psychological, developmental and sociological approaches which play a significant role in science curriculum and development. The process skills and manipulative skills associated with science. Com-

parison of existing approaches to teaching science. Science development associated with mathematics and language development. Resources for science education. Development and implementation of units of work.

Course: ED51 Prerequisite: MDB303
Credit Points: 12 Contact Hours: 3 per week

■ MDB342 COMPUTERS IN THE SCHOOL CURRICULUM

Designed to provide teachers with a framework for investigating the present and future influence of computers on curriculum development in educational institutions.

Course: ED51
Credit Points: 12 Contact Hours: 3 per week

■ MDB343 DIAGNOSIS & REMEDIATION IN MATHEMATICS

Overview of numerical and conceptual learning difficulties in mathematics; learning experiences in various areas of mathematics; utility of mathematics in real life situations; examination of mathematics in other curriculum areas; learning experiences in the integration of mathematical topics; use of hand-held calculator and the computer as aids to conceptual development and as practical tools; error analysis and diagnostic inventories; remedial strategies.

Course: ED51
Credit Points: 12 Contact Hours: 3 per week

■ MDB344 INITIATIVES IN SCIENCE EDUCATION

Exploration of alternative practices in science education particularly through the development of research-based project work for children, the extended excursion or field trip and involvement in community sponsored and/or related science activities and events.

Course: ED51
Credit Points: 12 Contact Hours: 3 per week

■ MDB345 SOFTWARE DEVELOPMENT FOR EDUCATIONAL CONTEXTS

Algorithmic thinking and its implementation form a major component within the Information Processing and Technology syllabus now implemented in secondary schools. Prospective teachers of courses such as these require a sound foundation in the design and development of software along with the use of modern abstract procedural, data and object handling representations. Software design and development are closely bound to particular problems contexts. This unit is based on the design of educational software because this area is relevant to the students concerned and because there is a clear demand for such software. Students in this unit will employ a range of powerful programming techniques and structures in the development of educational computer software.

Course: ED50 Prerequisite: CSB860
Credit Points: 12 Contact Hours: 3 per week

■ MDB347 EXCURSIONS IN MATHEMATICS

An invitation to explore some interesting byways off the high road of mathematics. Discover some intriguing diversions to add quality to your lessons.

Course: ED51
Credit Points: 12 Contact Hours: 3 per week

■ MDB348 HISTORY OF MATHEMATICS

Methods to record numbers; early view of number (fact and fantasy); numeration systems used today; early methods of calculation from ancient times, to Napier's logarithms to the modern computer; contributions of mathematicians including the Greeks, Fibonacci, Pascal, Euler, Gauss, Galois, Fermat, Turing; major historical developments in content areas of geometry, algebra,

probability and modern day applications involving measurement.

Courses: ED51, ED52

Prerequisites: First three semesters of the course
Credit Points: 12 Contact Hours: 3 per week

■ MDB349 MATHEMATICAL REASONING

The concept of thinking and intelligence; the nature of mathematical thinking during the first half of this century; modern ideas on the nature of mathematical thinking; the thinking skills movement and programs designed to foster thinking; analysis of children's thinking in solving mathematical problems; analysis of students' 'everyday cognition' together with their thinking in mathematical situations.

Course: ED51
Credit Points: 12 Contact Hours: 3 per week

■ MDB375 COMPUTING TOOLS FOR TEACHERS

The use of writing and publishing software, graphics design software, computer managed learning development tools, numerical software tools, personal and project management tools, communications technologies and computer peripherals used in the production of computer generated materials.

Course: ED50
Credit Points: 12 Contact Hours: 3 per week

■ MDB377 PROJECT PLANNING & IMPLEMENTATION FOR EDUCATIONAL PURPOSES

The study of computing and its application in educational and other environments is very much associated with planned and sequenced implementation of tasks. A study and understanding of how tasks might be represented, sequenced and implemented is essential if technology is to be used effectively in education. The use of project work as a pedagogical technique is a popular strategy to promote independent learning and student autonomy. This unit provides students with a framework to evaluate this methodology.

Course: ED50 Prerequisite: MDB375
Credit Points: 12 Contact Hours: 3 per week

■ MDB378 EARTH & SPACE

Examination of scientific concepts in important areas of space, time and motion, the origin and history of earth and its environments. Scientific principles and techniques for observing space and earth phenomena are investigated. Strategies for incorporating this knowledge in teaching settings.

Course: ED51
Credit Points: 12 Contact Hours: 3 per week

■ MDB379 SCIENCE & SURVIVAL

Examination of a range of scientific concepts in the area of matter and energy and how these concepts are applied in a technological context. On a broader horizon, the scientific principles underlying major innovations, disasters and controversial issues are examined. Strategies for incorporating this knowledge in a teaching situation.

Course: ED51
Credit Points: 12 Contact Hours: 3 per week

■ MDB380 TECHNOLOGY & LIFE SCIENCE

The interaction of organisms and their physical environment; the human influence in the biosphere; how technology empowers communities to exploit and/or protect biological systems and the integrity of the earth as humanity experiences it today. This unit focuses on the use of instrumentation and technology in the area of science research in the life sciences and investigates how this technology can be adapted to practice in primary classrooms.

Course: ED51
Credit Points: 12 **Contact Hours:** 3 per week

■ **MDB381 SCIENCE AND TECHNOLOGY IN THE COMMUNITY AND WORKPLACE**

Development of an awareness of how science and technology pervade most aspects of our daily lives in communities and workplaces. The implications of a rapidly changing scientific and technological base of industry; increasing involvement of the public in national and international decision-making; the need for a scientifically literate society. Practical exercises and projects are also undertaken.

Course: ED54
Credit Points: 12 **Contact Hours:** 3 per week

■ **MDB382 PROBLEM SOLVING, CRITICAL THINKING AND FUTURING**

Reviews state-of-the-art concepts and practices from problem solving, critical thinking, and futuring knowledge bases which have practical applications in the adult education and human resource development field. Participants may enhance their professional effectiveness in performing administrative, instructional, and program development responsibilities through modern practice.

Course: ED54
Credit Points: 12 **Contact Hours:** 3 per week

■ **MDB383 USING INFORMATION TECHNOLOGIES IN THE CURRICULUM**

Examination and analysis of relevant curriculum documents, e.g. National Technology Statement, Queensland Education Department. Guidelines for the Use of Computers in Learning, curriculum developed as a result of the Wiltshire Report. Content will include models for learning with information technology; models for learning about information technology; and managing information technology resources.

Course: ED51
Credit Points: 12 **Contact Hours:** 3 per week

■ **MDB384 SCIENCE EDUCATION**

Science curriculum development and implementation will examine the growth of children's understandings of key concepts in science. The development of their scientific thinking and manipulative skills will also be investigated in conjunction with this. Extended sequences of learning experiences, or programs, will be planned and implemented.

Course: ED51
Credit Points: 12 **Contact Hours:** 3 per week

■ **MDB385 INFORMATION TECHNOLOGIES IN EDUCATION**

A critical reflection on the history of technological development and the social impact of these developments combined with issues relating to the uses of information technologies in teaching and learning. Lecture sessions with workshop and laboratory sessions will assist students to become competent in applying information technologies to academic tasks accessing electronic information sources, creating documents, engaging in computer-based dialogues, analysing, evaluating.

Course: ED52
Credit Points: 12 **Contact Hours:** 3 per week

■ **MDB386 MATHEMATICS FOUNDATIONS**

This unit will introduce prospective teachers in the primary school to those elements that are important to mathematics today. The unit will begin by exploring the ideas of mathematics in today's society. The unit will then look at the history of mathematics relating to mathematics as it is presented in modern day classrooms. The historical analysis will look at the development of the structure of the unit. From this introduction, the formal connections between the disciplines – number, geometry and meas-

urement – will be further analysed. The students will see that mathematics is a discipline with applications that are used today.

Course: ED52, ED51
Credit Points: 12 **Contact Hours:** 3 per week

■ **MDB387 SCIENCE FOUNDATIONS**

This unit will develop students' understandings of fundamental concepts related to natural and processed materials, energy, change and growth. Students will also examine issues such as the nature of science, the historical development of major concepts of science, the development of communication in science, and the relationship of science to society. Students will engage in the processes of working through practical hands-on activities, discussions and debates, and small project work.

Course: ED52, ED51
Credit Points: 12 **Contact Hours:** 3 per week

■ **MDB388 GAMING AND CHANCE**

Discover the world of probabilistic mathematics, gaming, expectation and decision-making through games and activities that have application in mathematics teaching.

Course: ED52, ED51
Credit Points: 12 **Contact Hours:** 3 per week

■ **MDB389 LIFE AND LIVING PROCESSES**

The interaction of organisms and their physical environment will be investigated, in particular, the human influence on the biosphere. The role of technology in empowering communities to exploit and/or protect biological systems and the integrity of the earth as humanity experiences it today will also be studied. Energy and energy changes, energy resources and the responsible use of those resources will be considered.

Course: ED52, ED51 **Prerequisite:** MDB387
Credit Points: 12 **Contact Hours:** 3 per week

■ **MDB390 NATURAL AND PROCESSES MATERIALS**

This unit continues the development of students' content knowledge in science by examining a range of scientific concepts that contribute to an understanding of science in a technological context. The focus will be on the exploitation of natural and processed materials and a consideration of the environment and social costs and benefits associated with the use of those materials.

Course: ED52, ED51
Prerequisite: Life and Living Processes
Credit Points: 12 **Contact Hours:** 3 per week

■ **MDB391 EARTH AND SPACE**

The unit examines scientific concepts in important areas of space, time and motion, the origin and history of earth and its environments, and light and optics. Scientific principles and techniques for observing space and earth phenomena will also be investigated.

Course: ED52, ED51 **Prerequisite:** MDB390
Credit Points: 12 **Contact Hours:** 3 per week

■ **MDB392 EDUCATIONAL COMPUTING ENVIRONMENTS**

An introduction to computer systems, including an understanding of computer systems and networks used in education. The focus will be on the technical management of personal and networked systems commonly found in schools. Students will use an appropriate educational programming language to apply their understandings of computer systems to a practical situation.

Course: ED52, ED51
Credit Points: 12 **Contact Hours:** 3 per week

■ **MDB393 NETWORKED COMMUNICATIONS**

This unit examines how a number of computer-linked communities can provide access to information and re-

sources that teachers may use both personally and professionally. Students will use such things as local and wide area networks, electronic information services, Internet, and the World Wide Web to participate in global and local communities and contribute to the resources available to these communities.

Course: ED52, ED51

Credit Points: 12 Contact Hours: 3 per week

■ **MDB394 CHOOSING SOFTWARE FOR EDUCATIONAL CONTEXTS**

Through an examination of specific items of educational software, students will develop a set of criteria for evaluating such software. Software will include computer-based learning and computer-based managed learning materials, multimedia materials delivered via CD-rom or other computer-based media, and software designed to promote the development of higher order thinking and communicative skills.

Course: ED52, ED51

Credit Points: 12 Contact Hours: 3 per week

■ **MDB410 COMPUTERS IN THE SCHOOL CURRICULUM**

The introduction of computers into the school environment and curriculum; methods for teaching computer studies; the use of computers for classroom management and support; computer technology and its impact on schools and society. Access to an appropriate microcomputer is required.

Course: ED26

Credit Points: 12 Contact Hours: 3 per week

■ **MDB411 EARLY CHILDHOOD MATHEMATICS TEACHING, LEARNING AND ASSESSMENT**

Theoretical background and research; logical sequence of mathematics and children's cognitive development; content and learning experiences for early childhood; integration and application.

Course: ED26, ED61

Credit Points: 12 Contact Hours: 3 per week

■ **MDB414 LEARNING ENVIRONMENTS USING INFORMATION TECHNOLOGY**

In this unit, students will explore the contribution that advanced information technologies can make to teaching and learning. Students will gain exposure to applications of technology such as multimedia materials and authoring software, the Internet, the World Wide Web, and CD-ROM based materials. They will be required to apply these to a variety of curriculum settings.

Course: ED50

Credit Points: 12 Contact Hours: 3 per week

■ **MDB417 ASSESSING THE MATHEMATICAL AND SCIENTIFIC ABILITIES OF STUDENTS**

This unit focuses on the identification, investigation and assessment of the mathematical and/or scientific abilities of students and the examination and implementation of strategies for enhancing and modifying those abilities. This unit has a major practical and research oriented component generally undertaken in a school setting. The mathematical and/or scientific abilities of studies can be related to any secondary subject.

Course: ED50

Credit Points: 12 Contact Hours: 3 per week

■ **MDB418 CREATING MULTIMEDIA ENVIRONMENTS FOR TEACHING AND LEARNING**

The use of interactive technology in the teaching/learning processes; approaches to and uses of computer aided learning including hypermedia authoring systems such as Hypercard and Toolbook and their application in multimedia environments. Students will be involved in

designing and producing an interactive learning environment using appropriate authoring software.

Course: ED51

Credit Points: 12 Contact Hours: 3 per week

■ **MDB419 MAPPING CHILDREN'S LEARNING OF MATHEMATICS**

This unit will focus on strategies and techniques for mapping children's range of knowing, knowledge building and reasoning in mathematics; and for using this to provide a framework for guiding future learning. Students will act as teacher-researchers in a school based context, working with children to gain insight into their conceptions of mathematics and its learning and developing, and implementing programs to enhance learning.

Course: ED51

Credit Points: 12 Contact Hours: 3 per week

■ **MDB429 INITIATIVES IN SCIENCE EDUCATION**

In this unit students will have the opportunity to explore alternative practices in science education, particularly through the development of research-based project work for children, the extended excursion or field trip and involvement in community-sponsored and/or related science activities and events. An emphasis will be placed on catering for the individual and providing experiences which fully extend each child, including the exceptional child.

Course: ED51

Credit Points: 12 Contact Hours: 3 per week

■ **MDB440 COMPUTERS & EDUCATION**

An overview of microcomputer hardware and software with an emphasis on the usefulness of various components in schools; use of educationally valuable application software; critical examination of a variety of uses of computers in education; the impact of computers on society and education in particular.

Course: ED26

Credit Points: 12 Contact Hours: 3 per week

■ **MDB444 SCIENCE CURRICULUM**

Review of direction for science education nationally and globally; critical evaluation of current practice and curricula; review of how students learn science with reference to current research; application of these principles to changes in curriculum and teaching strategies; design implementation and evaluation of curriculum change.

Course: ED26

Credit Points: 12 Contact Hours: 3 per week

■ **MDB446 SCIENCE FOR EARLY CHILDHOOD**

Science for young children; theoretical background of science education; development of process and manipulative skills; the role of the teacher in a child-centred science curriculum.

Course: ED26

Credit Points: 12 Contact Hours: 3 per week

■ **MDB447 MATHEMATICS CURRICULUM**

Recent developments in the teaching and learning of mathematics; identification of effective curriculum models and teaching strategies for mathematics; understanding the content of school mathematics; developing and evaluating curriculum applications.

Courses: ED26

Credit Points: 12 Contact Hours: 3 per week

■ **MDB448 MATHEMATICS TEACHING, LEARNING & ASSESSMENT**

This unit focuses on recent trends in the teaching and assessment of mathematics in school and post-compulsory education. The ideas from recent reports and relevant theories are applied to specific areas of the math-

ematics curriculum to develop practical teaching and assessment plans. Part of the unit allows participants to specialise in the use of a specific approach including problem solving and the use of historical topics.

Course: ED26

Credit Points: 12 Contact Hours: 3 per week

■ **MDN615 CURRICULUM STUDIES IN MATHEMATICS, SCIENCE OR TECHNOLOGY EDUCATION**

A study of curriculum in one of the major areas of study in mathematics, science or technology education. Examples of topics to be addressed include: curriculum theory and design; intended, developed and enacted curriculum; curriculum implementation and evaluation; historical considerations; current curriculum considerations.

Courses: ED13, ED61 Credit Points: 12

■ **MDN616 PEDAGOGY IN MATHEMATICS, SCIENCE OR TECHNOLOGY EDUCATION**

The various factors that determine the effectiveness of the mathematics, science and technology learning environments. Factors considered include the role of the teacher, learning theories, social context. The units achieves a balance between theoretical considerations and practical experience of the participants.

Courses: ED13, ED61 Prerequisites: EDN601

Credit Points: 12

■ **MDN619 TECHNOLOGICALLY SUPPORTED LEARNING AND TEACHING ENVIRONMENTS**

Computer-based software, equipment and educational settings as technological environments; models of interpreting technological environments; historical perspective of learning/teaching technologies; design of technological environments.

Courses: ED13 Credit Points: 12

■ **MDN620 STUDENT EVALUATION IN MATHEMATICS/SCIENCE/ TECHNOLOGY EDUCATION: ASSESSMENT & INTERVENTION**

The major theoretical issues in assessment in mathematics, science and technology education. The role of assessment and intervention is discussed and expertise is developed in planning of assessment instruments and in their evaluation.

Courses: ED13, ED11 Credit Points: 12

■ **MDN621 MATHEMATICAL AND SCIENTIFIC REASONING**

Recent theories and research in cognitive psychology and their application to mathematics and science education. Topics of study include the nature of mathematical and scientific knowledge and understanding, cognitive complexity, analogical reasoning, and problem solving and thinking in mathematics and science. The unit develops students' understanding of these issues so that they might apply this to their own teaching and research.

Courses: ED13, ED11 Prerequisites: EDN601

Corequisites: MDN616

Credit Points: 12 Contact Hours:

■ **MDP401 JUNIOR SCIENCE CURRICULUM STUDIES 1**

Development of basic proficiencies in teaching Junior Science. The unit is based upon current theories of learning and models of science education; laboratory safety and management.

Course: ED37

Credit Points: 12 Contact Hours: 3 per week

■ **MDP402 JUNIOR SCIENCE CURRICULUM STUDIES 2**

See MDP401. The opportunity to extend expertise with

respect to a wide range of teaching strategies and learning contexts.

Course: ED37

Credit Points: 12

Prerequisite: MDP401

Contact Hours: 3 per week

■ **MDP403 MATHEMATICS CURRICULUM STUDIES 1**

A foundation for the planning and implementation of mathematics instruction; learning theories; practical curriculum planning; school syllabuses and programs in mathematics are examined.

Course: ED37

Credit Points: 12

Contact Hours: 3 per week

■ **MDP404 MATHEMATICS CURRICULUM STUDIES 2**

See MDP403.

Course: ED37

Credit Points: 12

Prerequisite: MDP403

Contact Hours: 3 per week

■ **MDP405 COMPUTER EDUCATION CURRICULUM STUDIES 1**

The broad issues of computer curricula; specific computer units in secondary schools, syllabus analysis, work program development. Management of computer studies and computer education in a school.

Course: ED37

Credit Points: 12

Contact Hours: 3 per week

■ **MDP406 COMPUTER EDUCATION CURRICULUM STUDIES 2**

Analysis of topics in computer studies programs, learning computer studies, assessment, teaching strategies, classroom management. Work unit development.

Course: ED37

Credit Points: 12

Prerequisite: MDP405

Contact Hours: 3 per week

■ **MDP407 SENIOR SCIENCE CURRICULUM STUDIES 1**

The opportunity to develop basic proficiencies in teaching a senior science subject; teaching strategies which foster the development of complex reasoning and skill development.

Course: ED37

Credit Points: 12

Contact Hours: 3 per week

■ **MDP408 SENIOR AGRICULTURE CURRICULUM STUDIES 2**

Offers students the opportunity to extend expertise with respect to this particular discipline. Emphasis is placed on current issues in the discipline and teaching strategies which allow these issues to be freely discussed in the classroom.

Course: ED37

Credit Points: 12

Prerequisite: MDP407

Contact Hours: 3 per week

■ **MDP409 SENIOR BIOLOGY CURRICULUM STUDIES 2**

See MDP408.

Course: ED37

Credit Points: 12

Prerequisite: MDP407

Contact Hours: 3 per week

■ **MDP410 SENIOR CHEMISTRY CURRICULUM STUDIES 2**

See MDP408.

Course: ED37

Credit Points: 12

Prerequisite: MDP407

Contact Hours: 3 per week

■ **MDP411 SENIOR EARTH SCIENCE CURRICULUM STUDIES 2**

See MDP408.

Course: ED37

Credit Points: 12

Prerequisite: MDP407

Contact Hours: 3 per week

■ **MDP412 SENIOR MARINE STUDIES CURRICULUM STUDIES 2**

See MDP408.

Course: ED37

Credit Points: 12

Prerequisite: MDP407

Contact Hours: 3 per week

■ **MDP413 SENIOR PHYSICS CURRICULUM STUDIES 2**

See MDP408 .

Course: ED37

Credit Points: 12

Prerequisite: MDP407

Contact Hours: 3 per week

■ **MDP450 MATHEMATICS, SCIENCE & TECHNOLOGY 1**

The contexts of learning and processes by which effective mathematics/science learning takes place; the nature of mathematics/science and the rationale for mathematics/science education; theoretical constructs of curriculum development; approaches to teaching; key concepts and processes; technology in mathematics/science teaching.

Course: ED36

Credit Points: 12

Contact Hours: 3 per week

■ **MDP451 MATHEMATICS, SCIENCE & TECHNOLOGY 2**

Application of key concepts and processes in mathematics/science; concepts and processes studied in Semester 1 transferred to other mathematics/science topics; development of teaching episodes incorporating the concepts and processes. Assessment and evaluation; difference between assessment and evaluation; nature and types of assessment/evaluation. Child study: student selects child and mathematics/science topic to assess; develop instruments for assessment; analyse child's performance; develop individual program to cater for child's individual mathematical/scientific needs.

Course: ED36

Credit Points: 12

Prerequisite: MDP450

Contact Hours: 3 per week

■ **MDP503 INFORMATION SYSTEMS IN EDUCATION**

Explores some of the characteristics and applications of information systems in an educational context. How information is modelled, stored and retrieved using relational database techniques; the impact on society of the use of information systems; the pedagogies associated with teaching about and using information systems in schools are explored.

Course: ED21, ED51, ED52

Credit Points: 12

Contact Hours: 3 per week

■ **MDP504 SCHOOL ADMINISTRATION USING INFORMATION TECHNOLOGY**

The use of information technologies in the administration of schools; explores a range of administrative packages; cost benefits and ethical implications.

Course: ED21, ED51, ED52

Prerequisites: MDP532 or MDP530

Credit Points: 12

Contact Hours: 3 per week

■ **MDP506 COMPUTER EDUCATION PROJECT**

Offers students the opportunity to extend expertise gained in other units in the Graduate Diploma in Education (Computer Education). Under supervision, students select a problem relevant to computer education and implement a solution.

Course: ED21, ED61

Credit Points: 12

Contact Hours: 3 per week

■ **MDP507 TEACHING SECONDARY COMPUTER STUDIES**

Investigates and develops the pedagogy and management associated with Computer Studies courses currently implemented in Queensland Secondary schools. Emphasis is given to the Information Processing and Technology syllabus and the Practical Computer Methods syllabus.

Course: ED21

Corequisite: MDP537

Credit Points: 12

Prerequisites: MDP503, MDP532

Contact Hours: 3 per week

■ **MDP508 COMPUTER USE IN THE PRIMARY CURRICULUM**

Examines the extent to which computers may be used to teach problem solving in the primary classroom through a study of Logo, adventure games, simulations, and genuine problem-solving software. In addition, the use of popular software tools as aids to teaching and learning is considered.

Courses: ED21, ED61

Prerequisites: MDP537 or MDP532 or MDP530

Credit Points: 12

Contact Hours: 3 per week

■ **MDP529 ASSESSMENT & REMEDIATION IN MATHEMATICS**

Overview of numerical and conceptual learning difficulties in mathematics; learning experiences in various areas of mathematics, utility of mathematics in real life situations; examination of mathematics in other curriculum areas; learning experiences in the integration of mathematical topics; use of hand-held calculator and the computer as aids to conceptual development as practical tools; geometric and algebraic concepts across the curriculum; error analysis and diagnostic inventories; remedial strategies.

Courses: ED28, ED61

Credit Points: 12

Contact Hours: 3 per week

■ **MDP530 COMPUTER APPLICATIONS IN EDUCATION**

Allows students to gain technological skills and understanding while investigating applications of these technologies in the context of teaching and learning. A wide range of computer applications will be covered, including writing, publishing, graphics, communications and project management tools.

Courses: ED21, ED61

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: MDP505

■ **MDP531 INVESTIGATIONS INTO COMPUTER-AIDED LEARNING**

The use of interactive technology in the teaching/learning process; approaches to and uses of computer-aided learning, hypermedia authoring systems such as Hypercard, Linkways and Toolbook, and their applications in multimedia environments.

Course: ED21, ED61

Credit Points: 12

Contact Hours: 3 per week

■ **MDP532 COMPUTER SYSTEMS IN AN EDUCATIONAL CONTEXT**

An introduction to educational computer systems; it includes a study of problem-solving using computers, the architectures of computer systems, operating systems and an introduction to computer programming using appropriate educational languages.

Courses: ED21, ED26

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: MDP501

■ **MDP533 TEACHING INFORMATION SYSTEMS MODELLING**

Designed for prospective teachers of information system modelling; explores the pedagogies and approaches appropriate for teaching students at a variety of levels including a secondary school environment; development and writing of specification documents for information system implementation within an educational context; tools such as relational languages and CASE used by students to implement small educational information systems.

Course: ED21

Prerequisite: MDP503

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: MDP509

■ MDP534 EDUCATIONAL APPLICATIONS OF ARTIFICIAL INTELLIGENCE

Artificial Intelligence (AI) as a discipline impacting on education, philosophical issues, and methods used in AI; focuses particularly on AI applications which cross broad areas of the school curriculum; provides appropriate curriculum support for teachers of the AI topic within the Information Processing and Technology unit at a secondary school level.

Course: ED21

Prerequisite: MDP535

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: CSP842

■ MDP535 EDUCATIONAL SOFTWARE DEVELOPMENT

Data, procedural and object-orientated abstractions used in conjunction with modular programming practices. These understandings are used to solve problems from a wide range of practical educational applications especially with respect to the development of educational software.

Course: ED21

Prerequisite: MDP532

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: CSP837

■ MDP536 COMPUTER GRAPHICS IN TEACHING

The use of computer graphics to enhance teaching and learning in a school environment. A problem-solving approach is employed and students are given the opportunity to apply what they are learning to their own curriculum areas.

Courses: ED21, ED61

Prerequisites: MDP532 or MDP530

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: CSP843

■ MDP537 MAJOR ISSUES IN COMPUTER EDUCATION

The application and implication of the use of information technologies in an educational environment; the impact of teaching, learning and the curriculum.

Courses: ED21, ED61

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: MDP502

■ MEB010 DYNAMICS 1

Modelling methods and analysis; motion of relevant machines and mechanisms; fluids, transmissions and methods of measurement.

Course: BN30

Credit Points: 4

Contact Hours: 2 per week

■ MEB012 DYNAMICS 2

Application of modelling techniques on machines and mechanisms; unbalanced forces in rotating bodies and gyroscopic effects; vibration; interaction of fluids and methods of measurement.

Course: BN30

Credit Points: 4

Prerequisite: MEB010

Contact Hours: 2 per week

■ MEB031 MATERIAL TECHNOLOGY

A structure property approach to orthotic materials; plastics; rubber; metals; composites; failure modes; strength; creep; fatigue; resilience; selection procedures.

Course: PU45

Credit Points: 8

Contact Hours: 3 per week

■ MEB035 SAFETY TECHNOLOGY 1

The importance and relevance of safety in the workplace; analysis of the accident process; hazards with machinery and materials failure.

Course: PU44

Credit Points: 8

Contact Hours: 3 per week

■ MEB111 DYNAMICS

The principles of dynamics; kinetics of particles and

systems of particles in plane motion; coordinate systems; relative motion; various methods for the solution of mechanisms; freebody diagrams; work-energy equations; impulse; momentum and impact.

Courses: EE43, EE44, EE45, IF56, ME35, ME45, ME46, ME47

Prerequisite: MAB187

Credit Points: 8

Contact Hours: 3 per week

■ MEB134 MATERIALS 1

Bonding; thermodynamics of solids; state and phase changes; defects; elasticity, plasticity and fracture; recovery diffusion; recrystallisation; hot and cold deformation; creep and fatigue mechanisms; heat treatment. Alloying and strengthening in metals, polymers and ceramics.

Courses: CE42, CE43, EE43, EE44, EE45, IF42, IF56, ME45, ME46, ME47

Credit Points: 8

Contact Hours: 3 per week

■ MEB173 MANUFACTURING PRACTICE

Manufacturing in world and Australian contexts; concept of manufacturing systems; conventional and non-traditional manufacturing technology; introduction to value analysis, product design and material selection; tolerancing and metrology; total quality control.

Course: IF56

Credit Points: 8

Contact Hours: 3 per week

■ MEB175 MANUFACTURING PRACTICE 1

Workplace health and safety practices. Lectures and hands-on instruction on general fitting and fabrication; metal joining (electric and gas); metrology. Industry visits.

Course: ME35

Credit Points: 8

Contact Hours: 3 per week

■ MEB181 ENGINEERING COMMUNICATION

An introductory course in engineering graphics covering the application of the principles of geometric drawing to the preparation of engineering drawings. Topics include orthographic projection; auxiliary views; sectioning; use of manufacturing symbols; dimensioning and tolerancing; pictorial views and sketching; data presentation; oral and written reporting. Computer aided drafting is introduced.

Courses: CE31, CE42, CE43, EE43, EE44, EE45, IF56, ME35, ME45, ME46, ME47, IF25, IF42, IF44

Credit Points: 8

Contact Hours: 5 per week

■ MEB191 ENGINEERING IN THE MEDICAL ENVIRONMENT

Overview of the health system in Australia; clinical disciplines within medicine; medical terminology; history of health technology; health technology from an engineering perspective; case studies.

Course: ME46

Credit Points: 8

Contact Hours: 3 per week

■ MEB213 MECHANICS OF SOLIDS

Concepts of stress, strain and elasticity; analysis of stress and strain; stresses in simple beams; torsion of circular shafts; stresses in thin-walled pressure vessels; strain measurement and strain gauging.

Courses: IF56, ME35, ME45, ME46, ME47

Prerequisite: CEB184

Credit Points: 8

Contact Hours: 4 per week

■ MEB221 ENGINEERING SCIENCE 1

Statics: forces in equilibrium; resolution of forces; friction; inertia and change of motion; application to connected bodies; dynamics of rotation; centripetal force; the hoist; periodic motion; balancing; work and energy; impulse and momentum; introduction to fluids at rest and in motion.

Courses: IF54, PS47, PS48, IF55

Prerequisite: MAB188 **Corequisite:** PHB172
Credit Points: 8 **Contact Hours:** 3 per week

■ **MEB275 MANUFACTURING PRACTICE 2**
Workplace health and safety practices. Lectures and hands-on instruction on machine tools; industrial presses; foundry methods; component assembly. Industry visits.
Course: ME35 **Prerequisite:** MEB175
Credit Points: 8 **Contact Hours:** 3 per week

■ **MEB282 DESIGN 1**
This introductory design course covers the selection of basic machine elements based on their function, size and capacity as part of a mechanical system. The course comprises mechanical design; power transfer; V-belt drives; chain drives; gear drives; machine components: introduction to, preparation and use of spreadsheets and databases.

Courses: IF56, ME35, ME45, ME47
Prerequisites: CEB184, MEB181 or MEB134
Corequisites: MEB111, MEB134 or MEB181
Credit Points: 8 **Contact Hours:** 4 per week

■ **MEB283 COMPUTER AIDED DESIGN AND DRAFTING**
This subject will allow students to expand previously acquired 2DCAD expertise to main frame, surface and solid modelling and to customise menus for personal use.

Course: ME35
Credit Points: 8 **Contact Hours:** 4 per week

■ **MEB314 MECHANICS 1**
Kinematic and dynamic analysis of planar linkages and mechanisms; link synthesis and its application to the design of mechanisms; determination of static and dynamic forces and torques due to inertia and other effects in mechanisms; balancing; design and synthesis of cams with specified motion using graphical and analytical methods; kinematic analysis of spur gears in mechanisms.

Courses: IF56, ME35, ME45, ME46, ME47
Prerequisites: CEB184, MEB111
Credit Points: 8 **Contact Hours:** 4 per week

■ **MEB333 BIOMATERIALS**
Characterisation of materials; metallic, ceramic, polymeric implant materials; composites as biomaterials; structure-property relationships of biomaterials; tissue response to implants; soft tissue replacements; hard tissue replacements; transplants.

Course: ME46 **Prerequisite:** MEB133 or MEB134
Credit Points: 8 **Contact Hours:** 3 per week

■ **MEB334 MATERIALS 2**
Introduction to fracture mechanics; plastic zone size and limitation of linear elastic fracture mechanics (LEFM); application of LEFM to static design, stress corrosion cracking, and fatigue crack growth; characteristics of polymers and composites; review of engineering ceramics.

Courses: IF56, ME35, ME45, ME47
Prerequisite: MEB133 or MEB134
Credit Points: 8 **Contact Hours:** 4 per week

■ **MEB352 THERMODYNAMICS 1**
Basics of engineering thermodynamics; reversibility; first and second laws of thermodynamics; liquid, vapour and gas; reversible non-flow processes; heat engine cycles; positive displacement expanders and compressors; multi-stage compressors; engine performance testing.
Courses: IF56, ME35, ME45, ME46, ME47
Credit Points: 8 **Contact Hours:** 4 per week

■ **MEB355 THERMOFLUIDS**
This unit introduces students to principles of heat trans-

fer, fluid power and more advanced application of fluid mechanics and thermodynamics. Unsteady fluid flow; dynamic similarity; rotodynamic machines; hydraulic fluid power systems; Rankine cycle and its application in steam power generation industry; vapour compression; gas turbines.

Courses: ME35
Credit Points: 8 **Contact Hours:** 3 per week

■ **MEB362 THERMOFLUIDS**
Fluid properties; forces on fluids at rest; definition and applications of the continuity equation, the momentum equation and the energy equation; isentropic compressible flow including boundary layer effects; first and second laws of thermodynamics.

Course: EE43
Credit Points: 8 **Contact Hours:** 3 per week

■ **MEB363 FLUIDS 1**
Fluid properties; forces on a fluid at rest; manometry; fluid pressure on submerged bodies; states of equilibrium; fluid flow; fluid flow and pressure drop in pipes; power transmission through pipelines; momentum and fluid flow; energy equation and fluid flow; applications of the momentum and energy equations; branching pipes.

Courses: IF53, IF56, ME35, ME45, ME46, ME47
Prerequisites: CEB184, PHB134, MAB188
Credit Points: 8 **Contact Hours:** 4 per week

■ **MEB381 DESIGN 2**
Methodology for mechanical design: design of machine elements; design for strength and fatigue; computer aided design.

Courses: ME35, ME45, ME47
Prerequisites: CEB184, MEB101 or MEB282, MEB121 or MEB181
Corequisite: MEB314
Credit Points: 8 **Contact Hours:** 3 per week

■ **MEB409 PROJECT 2**
Investigate and present a formal report on a mechanical engineering problem; project may be industry based or arise from applied research.

Course: ME45 **Prerequisites:** MEB502
Credit Points: 7 **Contact Hours:** 3 per week

■ **MEB430 MATERIALS 3**
Nucleation and growth phenomena in commercial materials; structure-property relationships and design considerations; welding of structural and joining materials; review of structure-property relationships in wrought alloys; engineering properties of steels.

Courses: IF53, IF56, ME45, ME46, ME47
Prerequisite: MEB133 or MEB134
Credit Points: 8 **Contact Hours:** 4 per week

■ **MEB450 AIR CONDITIONING**
Psychrometry; cooling load calculations; air conditioning systems; vapour compression refrigeration cycle analysis; multipressure systems; absorption refrigeration; field visit.

Course: ME35
Prerequisites: MEB251 or MEB455, MEB462 or MEB466
Credit Points: 7 **Contact Hours:** 3 per week

■ **MEB454 AERODYNAMICS 1**
Incompressible airflow around bluff bodies and aerofoils and in a tube of varying cross-sections; stalling of aerofoils; variations with angle of attack of lift, pressure, pitching moment and drag coefficients; the influence of Reynold's Number including the effect of boundary layers, turbulent and laminar; high lift devices and fuselage effect; planform effects; aircraft layouts such as canards and delta wings.

Course: EE43 Prerequisite: MEB362
Credit Points: 8 Contact Hours: 3 per week

■ **MEB455 THERMODYNAMICS 2**

Steam plant; nozzles; impulse and reaction turbines; gas turbines; mixtures; refrigeration; chemistry of combustion.

Courses: ME45, ME47 Prerequisite: MEB352
Credit Points: 8 Contact Hours: 4 per week

■ **MEB456 AIR CONDITIONING**

See MEB450.

Courses: ME35, ME36, ME45, ME47

Prerequisites: MEB251 or MEB455, MEB462 or MEB466

Corequisites: MEB554

Credit Points: 8 Contact Hours: 3 per week

■ **MEB463 TRIBOLOGY**

The fundamentals of tribology; specification and measurement of surface roughness; lubrication modes; lubricants; wear modes; bearing design; lubrication of machine elements; seals.

Course: ME35

Credit Points: 6 Contact Hours: 3 per week

■ **MEB464 FLUIDS 3**

Boundary layer theory; viscous flow via the Navier-Stokes and Reynold's equations; isentropic compressible flow; normal and oblique shock waves.

Course: ME45

Prerequisites: MAB893, MEB462 or MEB466

Credit Points: 7 Contact Hours: 3 per week

■ **MEB465 BIOFLUIDS**

Continuity of flow; viscosity and its measurements; Newton's law of measurement; non-Newtonian fluids; Navier-Stokes equations of motion; Eulerian and Lagrangian descriptions of flow; boundary layer theory; dimensional similarity; rheology and rheological models; rheology of biofluids; hemodynamics; artificial pumps, valves and pacers for biofluid systems; anaesthesia machines; blood flow meters; heart-lung by-pass machines.

Course: ME46

Credit Points: 8 Contact Hours: 3 per week

■ **MEB466 FLUIDS 2**

Unsteady fluid flow in piping systems; dynamic similarity; regimes of incompressible flow around a body (potential and boundary layer flow); principles of operation of pumps, turbines and hydrokinetic devices; Navier-Stokes equations applied to viscous flow; compressible fluid flow including normal shock waves.

Courses: ME35, ME45, ME47

Prerequisite: MEB363

Corequisite: MAB488

Credit Points: 8 Contact Hours: 4 per week

■ **MEB473 MANUFACTURING ENGINEERING 1**

Practical machining principles; cutting tools and cutting tool materials; analysis of tool wear and tool life; introduction to CNC technology and CNC part programming; types of welding processes; grinding and non-traditional material cutting processes; principles of metrology.

Courses: IF56, ME35, ME36, ME45, ME46, ME47

Corequisites: MEB363, MAB488

Credit Points: 8 Contact Hours: 4 per week

■ **MEB483 DESIGN 3**

Design of mechanisms; welded structures; flexible components; journal bearings; computer aided design.

Courses: IF53, IF56, ME45, ME47

Prerequisites: CEB102, CSB191, MEB111, MEB133, MEB314 MEB381

Corequisites: MEB334

Credit Points: 8 Contact Hours: 3 per week

■ **MEB484 BIOENGINEERING DESIGN 1**

Introduction to design methodology and problem solving; risk and safety factors in design; types of bearing and bearing selection; design of beams and shafts; type and choice of gear mechanisms; human factors engineering; psychological factors in design of displays; bioengineering applications of design theory.

Course: ME46

Prerequisites: CEB185, MEB121 or MEB181

Credit Points: 8 Contact Hours: 3 per week

■ **MEB490 PROJECT**

Investigation and analysis of technological or managerial problems in medical engineering and presentation of a written report.

Course: ME46

Credit Points: 16 Contact Hours: 3 per week

■ **MEB501 PROJECT**

A survey of relevant literature and organised experimental work resulting in conclusions presented in a formal report.

Course: ME35

Credit Points: 16 Contact Hours: 3 per week

■ **MEB503 SPECIAL TOPIC 1**

A series of lectures and tutorials in areas which are of special professional relevance to the student's intended career path, or which may be available on occasion from visiting scholars.

Courses: IF53, ME35, ME45, ME47

Prerequisite: Students to have achieved an appropriate level of preparation in topic area concerned.

Corequisite: Depends on the syllabus of the particular special topic offered

Credit Points: 8 Contact Hours: 3 per week

■ **MEB512 NOISE & VIBRATIONS**

Introduction to acoustics; noise levels, frequency and duration; sound power level; free and reverberant field; free and forced vibration and vibration absorption; torsion vibration; Holzer's method.

Courses: ME45, ME47

Prerequisites: PHB134, MAB493, MEB111

Credit Points: 8 Contact Hours: 4 per week

■ **MEB513 STRESS ANALYSIS**

Stress and strain in three dimensions; strain-gauge rosette analysis; two-dimensional problems; axi-symmetrically loaded problems; torsion of non-circular section; introduction to plates.

Courses: ME45, ME46, ME47

Prerequisites: MEB212 or MEB213, MAB493

Credit Points: 8 Contact Hours: 4 per week

■ **MEB532 ADVANCED MATERIALS**

Properties and applications for modern advanced composites; fibre reinforcements of ceramic, metal and polymer materials. Coatings of metals and ceramics by vapour deposition; plasma and advanced techniques. Surface treatments for frictional and wear performance. Properties of ultra high strength steels.

Courses: ME35, ME45, ME47

Prerequisites: MEB230 and MEB231 or MEB334 and MEB430

Credit Points: 8 Contact Hours: 3 per week

■ **MEB550 HEAT TRANSFER**

Conduction: steady-state, one and two-dimensions, unsteady-state; convection: boundary layers, forced, natural and radiation black and grey bodies, shape factors.

Course: ME35

Credit Points: 6 Contact Hours: 3 per week

■ **MEB551 PROPULSION & ENGINES**

Piston engines; super chargers and carburettors; actuator disc theory of propellers and rotary wing aircraft;

gas turbine engines; compressors; turbines; ignition systems; fuel control systems and afterburners; rocket motors; fuels and thrust calculations.

Course: EE43 **Prerequisite:** MEB362
Credit Points: 8 **Contact Hours:** 3 per week

■ MEB553 AERODYNAMICS 2

Transonic and supersonic flows; critical Mach numbers; quasi one-dimensional stationary current equations, shock waves, compressional and expansional; linear flow around aerofoil sections; convergent divergent nozzles; qualitative study of flow around differing wing areas and shape; climb, cruise, descent, take off and landing calculations.

Course: EE43 **Prerequisite:** MEB454
Credit Points: 8 **Contact Hours:** 3 per week

■ MEB554 HEAT TRANSFER

Conduction and convection heat transfer; overall heat-transfer coefficient; viscous and inviscid flow; boundary layers; empirical and practical relations for forced-convection heat transfer; natural-convection systems; radiation heat transfer; condensing and boiling; heat exchangers.

Courses: ME45, ME47
Credit Points: 8 **Contact Hours:** 4 per week

■ MEB572 MANUFACTURING ENGINEERING 2

Introduction to metalworking principles; hot and warm forging operations; extrusion operation; flat rolling operation; deep drawing operation; shearing/blanking operation; spinning operation; non-traditional metal forming operations; die/moulds in manufacturing processes; introduction to casting of ferrous and non-ferrous metals and alloys; shrinkage and porosity; fluid flow and design considerations in casting.

Courses: IF53, IF56, ME35, ME45, ME46, ME47
Credit Points: 8 **Contact Hours:** 4 per week

■ MEB580 BIOENGINEERING DESIGN 2

Effect of manufacturing processes on material properties and product design; manufacturing tolerances; computer-aided design and solid modelling; effect of computer-aided manufacturing on component design; rapid prototyping techniques; use of prototypes in manufacturing; reverse engineering by non-invasive techniques; design/testing/prototyping/production cycle; application of design for manufacturing of bioengineering devices.

Course: ME46 **Prerequisite:** MEB484
Credit Points: 8 **Contact Hours:** 3 per week

■ MEB602 SPECIAL TOPIC 2

See MEB503 Special Topic 1.

Courses: IF53, IF56, ME35, ME36, ME45, ME46, ME47
Credit Points: 8 **Contact Hours:** 3 per week

■ MEB611 STABILITY & CONTROL OF AIRCRAFT

Equations of motion; longitudinal, lateral and directional stick fixed and stick free control and stability; manoeuvring flight; use of aerodynamic coefficients without derivation; control system modelling.

Course: EE43 **Prerequisite:** MEB553
Credit Points: 8 **Contact Hours:** 3 per week

■ MEB612 MECHANICAL MEASUREMENTS

Stress and strain; force, torque and power measurements; vibration measurements; pressure and sound measurements; flow measurements; data transmission and recording.

Courses: ME35
Credit Points: 8 **Contact Hours:** 3 per week

■ MEB613 MECHANICS 2

Analysis of two-dimensional frames; small curvature

beam theory; analysis of compression members; introduction to energy methods; introduction to matrix methods; free and forced vibration; damped vibration; energy methods in vibration analyses.

Courses: ME45, ME47
Credit Points: 8 **Contact Hours:** 4 per week

■ MEB641 AUTOMATION 1

Mathematical models of mechanical systems; time domain; frequency domain; S-plane, including plotting of root locus diagrams.

Courses: IF53, ME45, ME46, ME47, IF56
Credit Points: 8 **Contact Hours:** 4 per week

■ MEB660 FLUID POWER

Introduction to fluid power; graphical symbols; simple circuits; cascade method; Boolean algebra; fluid logic; Karnaugh-Veitch method; hydraulic components; hydraulic system design; hydraulic circuits.

Course: ME35, ME45
Prerequisite: MEB462 or MEB466
Credit Points: 6 **Contact Hours:** 3 per week

■ MEB661 TRIBOLOGY

Terminology in lubrication, friction and wear; ploughing and adhesion components of friction; characterisation of solid surfaces; wear modes; chemistry of lubricants; lubrication modes; bearing design; lubrication of transmission elements; failure diagnosis; special lubrication problems; biological deterioration of lubricants; lubrication of human and prosthetic joints.

Courses: IF53, IF56, ME35, ME45, ME46, ME47
Credit Points: 8 **Contact Hours:** 4 per week

■ MEB662 FLUID POWER

Components of hydraulic and pneumatic systems; fluid power graphical symbols to Australian standards; fluid logic; hydraulic components; hydraulic system design; hydraulic circuits.

Courses: IF53, IF56, ME45, ME47
Prerequisite: MEB462 or MEB466
Credit Points: 8 **Contact Hours:** 4 per week

■ MEB670 INDUSTRIAL ENGINEERING 1

Project planning and control; plant location and layout, work study; design of experiments; linear programming applications.

Course: ME35
Credit Points: 6 **Contact Hours:** 3 per week

■ MEB672 TOTAL QUALITY MANAGEMENT

Total quality control and systems; quality engineering technology; statistical process control; product and systems reliability; ISO9000 and AS3900; management of engineering projects.

Courses: IF53, IF56, ME35, ME45, ME46, ME47
Credit Points: 8 **Contact Hours:** 3 per week

■ MEB675 PLASTICS TECHNOLOGY

Mechanical and physical properties of polymers; low moulding, compression moulding, transfer and rotational moulding; extrusion and plastic injection moulding; tooling and product design for plastic components; machinery, process control and instrumentation in the plastics forming process.

Course: ME35
Credit Points: 7 **Contact Hours:** 3 per week

■ MEB676 DESIGN FOR MANUFACTURING 1

Introduction to solid modelling; techniques used in the development of solid models; use of solid modelling in rapid prototyping; solid modelling in the concurrent engineering environment; introduction to CAD/CAM; use of CAM computer software for different manufacturing processes; other rapid prototyping techniques such as stereolithography.

Courses: IF53, IF56, ME35

Credit Points: 8 Contact Hours: 3 per week

■ **MEB677 INDUSTRIAL ENGINEERING 1**

See MEB670.

Course: ME35

Credit Points: 8 Contact Hours: 3 per week

■ **MEB678 PLASTICS TECHNOLOGY**

See MEB675.

Course: IF56

Credit Points: 8 Contact Hours: 3 per week

■ **MEB681 BIOENGINEERING DESIGN 3**

Real-time data processing circuitry; operational amplifier design and application; filter selection and design; logic circuit design; electrical control circuits; design for safety and reliability; biomedical transducers and sensors; computer control and data logging; use of stepper motors and gears; design of typical biomedical instruments.

Course: ME46

Prerequisites: EEB202, EEB371, PHB504

Credit Points: 8 Contact Hours: 3 per week

■ **MEB682 ADVANCED MECHANICAL DESIGN**

The application of modern materials and analytical techniques to mechanical design: ease studies; statistical analysis of failures; application of material science in design; fracture mechanics; computer aided optimisation techniques.

Courses: ME35, ME45, ME46, ME47

Prerequisites: MEB230 and MEB231 or MEB334 and MEB430, MEB411, MEB483

Credit Points: 8 Contact Hours: 3 per week

■ **MEB690 AIRCRAFT SYSTEMS**

Design criteria and techniques of hydraulic, pneumatic and electrical circuits to provide the services to operate a modern aircraft, e.g. detailed analysis of under-carriage and flap systems; aircraft fuel systems; pressurisation systems; cockpit instrumentation and associated equipment; principles and operation of gyroscopes and accelerometers.

Course: EE43

Credit Points: 8 Contact Hours: 3 per week

■ **MEB701 SPECIAL TOPIC 3**

See MEB503.

Course: ME45

Prerequisite: Students to have achieved an appropriate level of preparation in topic area concerned.

Corequisite: Depends on the syllabus of the particular special topic offered

Credit Points: 7 Contact Hours: 3 per week

■ **MEB702 SPECIAL TOPIC 3**

See MEB503.

Courses: ME45, ME47

Prerequisite: Students to have achieved an appropriate level of preparation in topic area concerned.

Corequisite: Depends on the syllabus of the particular special topic offered

Credit Points: 8 Contact Hours: 3 per week

■ **MEB703 RELIABILITY AND MAINTENANCE OPTIMISATION**

Development of reliable designs; bathtub curve, FMECA; series, active and standby reliability and availability; matrix methods; system productiveness; fault trees; distribution forms; Weibull analysis; renewal theory, age renewal; block renewal, bad-as-new renewal; Hastings' repair limit; inspect or monitor; physics of failure.

Course: ME46

Credit Points: 8 Contact Hours: 3 per week

■ **MEB710 AUTOMATION 2**

Use of computer packages in control system design (e.g. Matrix, X¹); fundamentals of discrete time systems; instrumentation used in the acquisition and analysis of digital data (e.g. Labtech); programmable logic controllers.

Course: ME45

Prerequisite: MEB640 or MEB641, MEB660 or MEB662

Credit Points: 6 Contact Hours: 3 per week

■ **MEB711 AUTOMATION 2**

Classical control: performance specification, system identification, creation of control loops, tuning, simulation; modern control: state space modelling, state variable feedback, controllability/observability, simulation.

Courses: ME45, ME47

Prerequisite: MEB640 or MEB641, MEB660 or MEB662

Credit Points: 8 Contact Hours: 4 per week

■ **MEB740 MAINTENANCE MANAGEMENT & TECHNOLOGY**

Economic and environmental importance of maintenance; management including organisation; data systems; cost control; spares policy; design for reliability; planning of overhauls; maintenance of buildings; mechanical maintenance and failure analysis; electrical and electronic maintenance.

Courses: EE43, ME35

Credit Points: 6 Contact Hours: 3 per week

■ **MEB741 MAINTENANCE MANAGEMENT & TECHNOLOGY**

See MEB740.

Courses: IF56, ME35, ME46

Credit Points: 8 Contact Hours: 3 per week

■ **MEB742 INDUSTRIAL ENGINEERING 2**

See MEB771.

Course: IF53

Credit Points: 8 Prerequisite: MEB670
Contact Hours: 3 per week

■ **MEB771 INDUSTRIAL ENGINEERING 2**

Forecasting; manufacturing resources planning; scheduling; capacity planning; total quality control; modelling and simulation.

Course: ME45 Prerequisite: MEB670 or MEB677

Credit Points: 6 Contact Hours: 3 per week

■ **MEB772 ENGINEERING PROJECT APPRAISAL**

Rational economic analysis of engineering projects at product and project level; techniques needed to establish the cost of a project; techniques for determining design changes needed to reduce the manufacturing cost of a product; strategies for new product planning.

Course: ME45

Prerequisites: MEB502, MEB472,

Credit Points: 6 Contact Hours: 3 per week

■ **MEB774 OPERATIONS MANAGEMENT**

Forecasting analysis and inventory control; linear programming, distribution models of assignment and transportation problems; plan layout including the principles of work study; maintenance and Monte Carlo simulation.

Course: ME35

Credit Points: 7 Contact Hours: 3 per week

■ **MEB775 TECHNOLOGY MANAGEMENT**

Ethics in business, policy and public service; health and safety administration and responsibilities; innovation, planning, creativity and intellectual property; planning and legal aspects of new technology and technology management.

Courses: ME45, ME47

Credit Points: 8 Contact Hours: 3 per week

■ **MEB776 DESIGN FOR MANUFACTURING 2**
The system of limits and fits; AS1654; geometric analysis for different features; interchangeability and loops equation; geometric tolerancing; datum systems; basic features of jig and fixture design.

Courses: IF53, ME35, ME45, ME47
Credit Points: 8 Contact Hours: 3 per week

■ **MEB777 OPERATIONS MANAGEMENT**

See MEB774.
Courses: EE43, IF53, ME45, ME47, IF56
Credit Points: 8 Contact Hours: 3 per week

■ **MEB778 CONCURRENT ENGINEERING**

The unit aims at introducing the student to the issues impacting on product development and how the principles of concurrent engineering are used to reduce time to market for new products. Introduction to concurrent engineering and formation of product development teams; Quality Function Deployment; basics and design for assembly and manufacture; product portfolio analysis; organisation; technologies such as CAD, rapid prototyping, rapid tooling.

Course: IF56
Credit Points: 8 Contact Hours: 3 per week

■ **MEB779 ENGINEERING PROJECT APPRAISAL**

See MEB772.
Course: ME45
Credit Points: 8 Contact Hours: 3 per week

■ **MEB780 REHABILITATION EQUIPMENT DESIGN & EVALUATION**

Functional requirements of orthoses; orthotic biomechanics; design and construction of orthoses; biomechanics of artificial limbs; alignments techniques; amputee socket design and manufacture; wheelchair design requirements; clinical evaluation of rehabilitation equipment.

Course: ME46
Credit Points: 8 Contact Hours: 3 per week

■ **MEB790 SPACECRAFT & SATELLITE DESIGN**

Analysis techniques of space vehicle control including stabilisation and altitude control; monitoring and control of internal environment; albedo measurements; effects of solar eclipse; heat and radiation projection methods; design of on-board systems including power systems; altitude control; libration dampers; accelerometers and station keeping systems; requirements for satellite and ground-station equipment design and operation.

Course: EE43 Prerequisite: EEB692
Credit Points: 8 Contact Hours: 3 per week

■ **MEB800 SPECIAL TOPIC 4**

See MEB503.
Course: ME45
Prerequisite: Students to have achieved an appropriate level of preparation in topic area concerned
Corequisite: Depends on the syllabus of the particular special topic offered
Credit Points: 7 Contact Hours: 3 per week

■ **MEB801 PROJECT**

Investigate and present a formal report on a mechanical engineering problem; project may be industry based or arise from applied research.

Courses: ME45, ME47 Credit Points: 40
Contact Hours: 6 per week (Sem 1); 8 per week (Sem 2)

■ **MEB802 PROJECT**

The student is required to investigate in depth and present a formal report on a problem area taken from the full range of mechanical engineering practice. Project may

arise through investigation in applied research programs or specific topic from industry.

Course: ME45
Credit Points: 32 Contact Hours: 6 per week

■ **MEB803 SPECIAL TOPIC 4**

See MEB503.
Courses: IF56, ME45, ME46, ME47
Prerequisite: Students to have achieved an appropriate level of preparation in topic area concerned
Corequisite: Depends on the syllabus of the particular special topic offered
Credit Points: 8 Contact Hours: 3 per week

■ **MEB805 PROJECT**

See MEB801.
Course: ME45
Credit Points: 36 Contact Hours: 6 per week

■ **MEB810 INDUSTRIAL NOISE & VIBRATION**

Vibration measurements; spectrum analysis; Kurtosis, Cepstrum and envelope analysis; averaging; gear, bearing and rotor vibration; whole body and arm vibration; noise measurements; noise power; industrial standards; attenuation methods.

Course: ME45 Prerequisite: MEB510 or MEB512
Credit Points: 7 Contact Hours: 3 per week

■ **MEB811 INDUSTRIAL NOISE & VIBRATION**

See MEB810.
Courses: IF53, ME45, ME47
Prerequisites: MEB510 or MEB511
Credit Points: 8 Contact Hours: 3 per week

■ **MEB871 COMPUTER CONTROL OF MANUFACTURING SYSTEMS**

Analysis of digital control systems and its application to process monitoring; programmable controllers; control of manufacturing and information systems in manufacturing; integration and interfacing of machine tools; applications and control systems associated with industrial robots; communications networks for manufacturing including MAP/TOP.

Course: IF53, IF56
Credit Points: 8 Contact Hours: 4 per week

■ **MEB872 DESIGN FOR MANUFACTURING 3**

Materials selection; design for manufacturing processes including casting, forging, extrusion, metal stamping, forming, powder metallurgy, welding and joining; design for assembly; design with advanced materials including plastics, ceramics and adhesives; electromechanical parts assembly; productibility, quality and cost considerations.

Course: IF53, IF56 Prerequisite: MEB776
Credit Points: 8 Contact Hours: 3 per week

■ **MEB873 COMPUTER INTEGRATED MANUFACTURING**

Systematic approach to integrated manufacturing systems; product-centred approach to manufacturing process; concepts of cell manufacturing; flexible manufacturing systems; modelling and simulation as a manufacturing system design tool; modelling and simulation methodology; use of commercial simulation package to evaluate manufacturing systems design.

Courses: IF53, IF56, ME35, ME45, ME47
Credit Points: 8 Contact Hours: 4 per week

■ **MEB879 MANUFACTURING RESOURCES PLANNING**

Manufacturing planning and control systems; recognising the various phases of planning in a manufacturing enterprise; lot size analysis and scheduling techniques; design aids and specifications of MRPII; measuring performances.

Courses: IF53, IF56
Credit Points: 8 **Contact Hours:** 3 per week

■ **MEB891 HEALTH LEGISLATION & THE MEDICAL ENVIRONMENT**

National and international legislative controlling bodies and codes; quality systems and good manufacturing practice; audit function and document trail; standards and compliance; law and medical products; hazard analysis and medical products; corrective actions and design charge; recall (hospital and production).

Course: ME46
Credit Points: 8 **Contact Hours:** 3 per week

■ **MEB892 ROBOTICS IN HEALTH CARE**

Components and terminology; dynamics of multi-linked systems; coordinate systems; mechanics and design of manipulators and end-effectors; servo system control theory; robotic sensors and location devices; computer programming of robots; anthropomorphic robots; applications of robots in surgery, rehabilitation and industry.

Course: ME46
Credit Points: 8 **Contact Hours:** 3 per week

■ **MEB901 INDUSTRY PROJECT**

Students will work full-time in an industrial environment for approximately six months attempting to solve a particular problem in the organisation; students will then present seminars and a final report.

Course: IF53, IF56
Credit Points: 32 **Contact Hours:** 40 per week

■ **MEB911 FINITE ELEMENT ANALYSIS**

General description of the finite element method; static and dynamic analysis of mechanical engineering problems; review of finite element packages.

Course: ME45
Prerequisites: MEB462 or MEB466, MEB511 or MEB513, MEB550 or MEB554, MEB610 or MEB610
Credit Points: 7 **Contact Hours:** 3 per week

■ **MEB912 FINITE ELEMENT ANALYSIS**

Survey of engineering applications of finite element analysis; formulation of simple elements including isoperimetric elements; modelling considerations for static and dynamic analyses; introduction to a finite element analysis package.

Courses: ME45, ME47
Prerequisites: MEB511 or MEB513, MEB550 or MEB554, MEB610 or MEB610, MEB462 or MEB466
Credit Points: 8 **Contact Hours:** 3 per week

■ **MEB940 KNOWLEDGE BASED MANUFACTURING SYSTEMS**

Introduction to knowledge based systems (KBS); knowledge representation, inference methods and uncertainty; examples of KBS in process planning, production management, diagnostic systems; building a KBS.

Courses: IF53, IF56
Credit Points: 8 **Contact Hours:** 3 per week

■ **MEB951 ENERGY AND THE ENVIRONMENT**

Developing an energy management plan; energy audits and associated metering; financial analysis; electricity and other tariffs; combustion theory and practice; fuel properties; energy cycles and refinement including cogeneration; energy recovery methods and plant; pinch technology; building energy management; compressed air; chemistry of water treatment processes.

Courses: ME45, ME47
Credit Points: 8 **Contact Hours:** 3 per week

■ **MEB952 PROCESS PLANT DESIGN**

Duct and industrial pipework system design; pressure vessel design methods; field visits.

Courses: ME35, ME45, ME47

Prerequisites: MEB251 or MEB455, MEB462 or MEB466

Corequisite: MEB513
Credit Points: 8 **Contact Hours:** 3 per week

■ **MEB960 FLUID SYSTEMS DESIGN**

Analysis of selected fluid systems; performance characteristics of components and systems.

Course: ME45 **Prerequisite:** MEB464
Credit Points: 7 **Contact Hours:** 3 per week

■ **MEB961 FLUID SYSTEMS DESIGN**

See MEB960.
Courses: ME45, ME47
Credit Points: 8 **Contact Hours:** 3 per week

■ **MEB980 DESIGN OF POWER TRANSMISSION SYSTEMS**

Design of systems for the transmission of mechanical power; solid elements: gears, clutches, belts, etc.; fluid elements: pneumatic and hydraulic.

Course: ME45
Prerequisites: EEB209, MEB313 or MEB411, MEB483, MEB512, MEB513
Credit Points: 7 **Contact Hours:** 3 per week

■ **MEB981 DESIGN OF MATERIALS HANDLING SYSTEMS**

Design of bulk material conveying and process plants, storage silos and bins, ground stockpiling systems, and the associated supporting structures.

Course: ME45
Prerequisites: CEB184, CEB185, MEB111, MEB411, MEB483, MEB511
Credit Points: 6 **Contact Hours:** 3 per week

■ **MEB983 INDUSTRIAL AUTOMATION**

To provide basic fundamentals in robotics as well as introducing the history, theory, applications and the future development of robotics. Introduction to robotics; robot kinematics; robot dynamics; trajectory planning; robot control; robot applications; robot related techniques.

Course: IF53, IF56
Credit Points: 8 **Contact Hours:** 3 per week

■ **MEB984 DESIGN OF POWER TRANSMISSION SYSTEMS**

See MEB980.
Courses: ME45, ME47
Prerequisites: EEB209, MEB313, or MEB314
Credit Points: 8 **Contact Hours:** 3 per week

■ **MEN140 QUALITY & RELIABILITY ENGINEERING**

Development of reliable designs; bathtub curve, FMECA; series, active and standby reliability and availability; matrix methods; system productiveness; fault trees; distribution forms; Weibull analysis; renewal theory, age renewal; block renewal, bad-as-old renewal; overhaul and renewal; Hastings' repair limit; inspect or monitor; physics of failure.

Course: ME75, ME76
Credit Points: 12 **Contact Hours:** 3 per week

■ **MEN170 SYSTEMS MODELLING & SIMULATION**

The concept of a model and model building; techniques for the solution of the models; simulation as a decision-making tool; modelling for simulation and practical exercises in simulation using computer simulation packages in the areas of manufacturing systems and maintenance.

Courses: BS81, ME75, ME76
Credit Points: 12 **Contact Hours:** 3 per week

■ **MEN171 ADVANCED MANUFACTURING TECHNOLOGIES**

Overview of manufacturing systems engineering and applications of advanced computer aided drafting and design; implementation of CAD/CAM systems using three-dimensional modelling techniques; classification systems for part family formation for production and tooling; benefits of computer aided process planning; introduction and installation of flexible manufacturing cells and systems including robotics, automated guiding vehicles, on-line computer aided inspection, automation integration, support technologies and planning for CIM.

Course: ME75, ME76

Credit Points: 12 Contact Hours: 3 per week

■ **MEN180 PROJECT MANAGEMENT**

Covers aspects of project management, including project planning feasibility assessments and financial evaluation, scheduling and resource control, controlling the project with respect to time, cost and equality.

Course: BS86, IF66

Credit Points: 6 Contact Hours: 3 per week

■ **MEN181 LOSS CONTROL MANAGEMENT**

Teaches students the principles of loss prevention and how to apply them to the reduction of accidents, property loss and quality improvements.

Course: BS86, IF66

Credit Points: 6 Contact Hours: 3 per week

■ **MEN190 PROJECT**

Substantial piece of work relevant to the course and carried out by each student on an individual basis; report is examined and marked by academic supervisor in consultation with industrial supervisor.

Course: ME76

Credit Points: 24 Contact Hours: 3 per week

■ **MEN240 MAINTENANCE MANAGEMENT & TECHNOLOGY**

Economic and environmental importance of maintenance; management of the maintenance function including organisation, data systems, cost control, spares policy, design for reliability, planning of overhauls; the maintenance of buildings; mechanical maintenance and failure analysis; electrical and electronic maintenance.

Course: ME75, ME76

Credit Points: 12 Contact Hours: 3 per week

■ **MEN270 MANUFACTURING RESOURCE PLANNING**

Functions and interrelationships between the three major components – production planning, operations planning and operations control – of a manufacturing requirements planning (MRP) system; practical exercises to provide hands-on experience with a MRP system such as FACT.

Course: ME75, ME76

Credit Points: 12 Contact Hours: 3 per week

■ **MEN271 METROLOGY**

The theory and practice of metrology which relates overall quality system requirements, methods of specifying products and components, calibration requirements, the theory of errors and uncertainties and some specialist measurements into a meaningful interpretation of metrology as part of a quality system.

Course: BS86

Credit Points: 6 Contact Hours: 3 per week

■ **MEN280 ENGINEERING PROJECT MANAGEMENT**

Definition of project management; organisational structures for project management; planning the project; feasibility analysis; organising the project; legal aspects;

project control; quality control.

Course: ME75, ME76

Credit Points: 12 Contact Hours: 3 per week

■ **MEP173 QUALITY PLANNING**

Quality terminology; SQC and the Deming philosophy; quality costs; the business plan; total quality management; the place of QA; quality improvement techniques; quality assurance, the essential requirements; quality manual, program and plan; setting up and developing an appropriate QA program; organisation for quality; procedures; activities, action and QA role for design, procurement and manufacturing, audit and corrective action.

Courses: BS77, IF69

Credit Points: 6 Contact Hours: 3 per week

■ **MEP201 SAFETY TECHNOLOGY & PRACTICE 1**

Overview of models of the accident phenomenon; technological background of potential hazards with electrical power; construction site mechanical equipment hazards and failure; failure modes of engineering materials; mechanical properties of engineering materials and their effect on failure mode.

Courses: HL88, PU65

Credit Points: 12 Contact Hours: 3 per week

■ **MEP273 QUALITY MEASUREMENT & TESTING**

Measurement basics; measurement and standards; measurement errors; reliability of measurements; application of statistics; the cumulative distribution function; weights and errors; statistical interpretation of test results; the hypergeometric distribution; the binomial distribution; the poisson distribution; the pascal distribution; the normal distribution; the central limit theorem. Quality assurance in the laboratory; calibration in the laboratory; uncertainty of measurements; the laboratory quality manual; assignments and laboratory audits.

Course: BS77

Credit Points: 6 Contact Hours: 3 per week

■ **MEP274 QUALITY SYSTEMS IMPLEMENTATION & MAINTENANCE**

Expectations of quality systems in relation to the AS3900 series of standards and AS2990/AS3905.2; system implementation principles; complexities and solutions; state purchasing policy; auditing objectives, philosophy, methodology and standards.

Courses: BS77, IF69, ME75

Credit Points: 12 Contact Hours: 3 per week

■ **MEP301 SAFETY TECHNOLOGY & PRACTICE 2**

The psychology of industrial accidents; the technology of electrical power plant mechanical equipment and materials failure pertaining to accident prevention; accident prevention and hazard recognition; risk management and control; design and maintenance of personal protection equipment; safe habits and the effective use of personal protection equipment.

Course: PU65

Credit Points: 12 Prerequisite: MEP201
Contact Hours: 3 per week

■ **MEP371 RELIABILITY & MAINTAINABILITY**

Reliability and maintainability; relationship between reliability and quality; designer, manufacturer and operator; means of achieving high reliability and maintainability; fundamental theory of reliability; reliability data analysis; practical applications of Weibull's distribution to reliability and maintainability; modelling; computerised maintenance systems, economics and systems availability.

Course: BS77

Credit Points: 6 Contact Hours: 3 per week

■ **MEP372 MEASUREMENT TESTING & RELIABILITY**

Measurement basics; reliability of measurements; application of statistics; statistical interpretation of test results; quality (product) from reliability (process); designer, manufacturer and operators role in achieving reliability.

Courses: BS77, IF69

Credit Points: 12 Contact Hours: 3 per week

■ **MGB001 HUMAN RESOURCES & INDUSTRIAL RELATIONS**

Influences impacting on human resource management and industrial relations in an engineering environment; theoretical foundation of human resource management and industrial relations.

Course: ME35

Credit Points: 8 Contact Hours: 2 per week

Incompatible with: HRB149

■ **MGB002 INDUSTRIAL MANAGEMENT**

The management process, planning, leading, organising, controlling; human resources management aspects of communication, motivation, leadership and teamwork, with practical applications to planning and control, personnel relations, job design.

Courses: EE43, ME45, ME46

Credit Points: 6 Contact Hours: 3 per week

Incompatible with: HRB111

■ **MGB003 MANAGEMENT (ENGINEERS)**

Career progression of the practising engineer from a technical to a managerial role; activities to be performed for effective management; development of theoretical and practical skills in planning, organising, controlling and leading; project teams; interpersonal interaction and teamwork; application of theoretical material to case study analysis.

Course: EE44

Credit Points: 4 Contact Hours: 2 per week

Incompatible with: HRB121

■ **MGB004 MANAGING PEOPLE AT WORK**

Introduction to the theory, process and practice of management and organisations with special reference to an engineering environment; importance of people in the achievement of organisational objectives.

Course: ME35

Credit Points: 8 Contact Hours: 2 per week

Incompatible with: HRB148

■ **MGB005 PRACTICE MANAGEMENT**

Small business management; the various roles in which small business managers must develop at least rudimentary proficiency. The structure, organisation, finance, planning, control, taxation, marketing and environmental factors to equip students with skills necessary for starting a successful small business.

Courses: OP42, PU45

Credit Points: 4 Contact Hours: 2 per week

Incompatible with: HRB132

■ **MGB100 METHODS & ANALYSIS**

Designed to provide students with a conceptual map about conducting research. Students proceed through the research process moving from establishing a research question, determining dependent and independent variables, deciding on analytic technique, gathering data, data analysis, drawing conclusions and reporting the research outcomes. Emphasis is placed on qualitative methodologies, including ethnology and archival research.

Courses: BS50, BS56

Prerequisite: BSB102 or BSB115

Credit Points: 12 Contact Hours: 3 per week

Incompatible with: EPB109, EPB163

■ **MGB200 BUSINESS STRATEGY**

Does not presume previous major core studies in management. Provides students with an understanding of the context of strategy within business ventures and develops skills necessary in planning. Some critical analysis is included, but emphasis is on the process of formulating and implementing business strategy and policy at developed levels in large organisations and in small businesses.

Courses: BS50, BS56

Prerequisite: BSB102 or BSB115

Credit Points: 12 Contact Hours: 3 per week

Incompatible with: MIB314

■ **MGB201 EMPLOYMENT REGULATION & ADMINISTRATION**

The formal regulatory nature of the employment relationship, and the informal rules and systems examined in the economic, political and social framework; practical and operational knowledge in relation to the contract of employment; awards, agreements, superannuation, termination and workers' compensation.

Courses: BS50, BS56

Prerequisites: HRB131 or HRN104 or MGB207 and MGB211

Credit Points: 12 Contact Hours: 3 per week

Incompatible with: HRB103

■ **MGB202 EQUITY AT WORK**

The historical, legal and social perspectives on current issues surrounding equal employment opportunity and anti-discrimination initiatives; workplace implications of current laws and, in particular, likely and possible impacts in making personnel-related decisions; concepts and application of the principle of merit, day to day impacts of equity legislation; practical models for EEO management planning.

Courses: BS50, BS56

Prerequisites: 192 credit points including MGB207 and MGB211

Credit Points: 12 Contact Hours: 3 per week

Incompatible with: HRB133

■ **MGB203 GOVERNMENT-MANAGEMENT INTERFACE**

Provides an essential understanding of the complex and dynamic relationships between business and Australian governments. Students will extend their basic knowledge of the role of governments to develop a more specific conceptual and empirical basis to understand how interactions between Australian government and business are managed. The focus is upon the political context of business activity, government policies towards business, their processes of development and operational impacts, and the constraints and capacities of various business sectors to influence the political system.

Courses: BS50, BS56

Prerequisites: EPB124 or BSB114 and MGB207 and MGB211

Credit Points: 12 Contact Hours: 3 per week

Incompatible with: EPB125, EPN101

■ **MGB204 INDUSTRIAL RELATIONS**

The structures, functions and roles of the main industrial relations institutions: courts, tribunals, unions and employer associations. Regulation of industrial relations by the state and management; various approaches to industrial relations theory and the causation, manifestation and resolution of industrial conflict.

Courses: BS50, BS56

Prerequisites: HRB131 or MGB207 and MGB211

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRB114

■ **MGB205 MACHINERY OF GOVERNMENT**

Provides a detailed understanding of Australian government. Examines and compares mechanisms, processes and issues in the three levels of Australian government (national, state and local). Includes areas such as constitutional arrangements, intergovernmental agencies and relationships, government business enterprises, the public service, fiscal and legal administrative arrangements. Provides both a detailed knowledge of how government works in Australia, and an understanding of the dynamics of government processes.

Courses: BS50, BS56

Prerequisite: EPB124 or BSB114

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPB135, EPB154, EPB167

■ **MGB206 MANAGEMENT AND ORGANISATION THEORY**

Examines the historical and theoretical roots of management and organisation concepts and practices, and the way management and organisation have been constructed as fields of inquiry by both management practitioners and academics. Organisational theories explained in this unit include: Weber's bureaucracy, stages of corporate development; transaction cost analysis; institutional and neo-institutional theory; population ecology; and various critical theories of organisation. Students have the opportunity to find out the strengths and limitations of management and organisational theories using a variety of critical approaches.

Courses: BS50, BS56

Prerequisites: BSB102 or MGB207 and MGB211

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRB127

■ **MGB207 MANAGING HUMAN RESOURCES**

Key functions and processes in the management of human resources from the perspectives of the various stakeholders in the employment relationship, a strategic approach in a total environment context, human resources management and industrial relations in theoretical and applied senses.

Courses: BS50, BS56 **Prerequisites:** BSB115

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRB131

■ **MGB208 MANAGEMENT PROCESSES**

This unit builds on theories of management encountered in introductory units. It has a focus on developing skills in the analysis of concepts and on practical application of managerial principles. It emphasises decision making in the context of strategic planning; development and adaptation of structure; control systems; process analysis. It analyses organisations within a systems paradigm considered in an environment of change.

Courses: BS50, IF52, IS43 **Prerequisite:** BSB102

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRB126

■ **MGB209 OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT**

Health and safety management at work; hazard identification, risk management and evaluation, control strategies and implementation programs; legal frameworks, government policy and management strategies; safety audits and the management of health and safety functions.

Courses: BS50, BS56

Prerequisites: HRB131 or HRN104 or MGB207 and MGB211

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRB128

■ **MGB210 OPERATIONS, PRODUCTION AND SERVICE MANAGEMENT**

Extends general management philosophies to the production/operations customer sub-systems. The pivotal concept is the organisation as a dynamic system affected by both external and internal forces. Operations management narrows the focus to the sub systems within the organisation that physically produces that organisation's goods or services. Issues of quality and efficiency are considered analytically in terms of broader strategies and constraints.

Courses: BS50, BS56

Prerequisites: HRB130 and HRB131, or MGB207 and MGB211

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRB129

■ **MGB211 ORGANISATIONAL BEHAVIOUR**

Impact that individual, group, and organisational characteristics have on behaviour within organisations. Theories, research and applications for understanding, predicting, changing behaviour and developing people in organisations. Topics include: abilities, learning, work motivation and attitudes, leadership and group dynamics, as well as macro issues such as structure and culture.

Courses: BS50, BS56

Prerequisite: BSB115

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRB130

■ **MGB212 PERSPECTIVES ON ORGANISATIONS**

Current and potential ways of understanding and designing organisations from a theoretical and practical point of view; Western and Asian perspectives on organisations; the emergent organisation as well as the 'designed' organisation; introduction to selected design skills.

Courses: BS50, BS56

Prerequisites: MGB207 and MGB211

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: COB103, COB129

■ **MGB213 PUBLIC SECTOR MANAGEMENT**

Provides a detailed understanding of the theories, mechanisms and practices of contemporary public sector management in Australia. Particular attention will be given to the problems and strains of public administration by examining its traditional foundations, structural dynamics, and the introduction of recent reforms. Examines the functions, operations and objectives of public sector management, including service delivery, finances and budget processes, marketing, performance review and evaluation, workplace issue and accountability. Students will develop a comprehensive and critical appraisal of the distinctive character and implications of contemporary public sector management.

Courses: BS50, BS56

Prerequisites: MGB205

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPB157, EPB162, HRB402

■ **MGB214 SOCIAL RESPONSIBILITY IN BUSINESS**

Critical ethical dilemmas which students are likely to face in their professional careers in change management and organisational design. Focuses on recognising, reasoning about, and dealing with such dilemmas, particularly using a behavioural approach; cross-cultural perspectives.

Courses: BS50, BS56

Prerequisites: BSB111 and MGB212

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: COB105

■ **MGB215 SPECIAL TOPIC**

Allows students to undertake specialised study on a topic

area relevant to particular needs. Permits an in-depth examination of an issue of importance. Content varies depending upon the issue examined, and the academic member(s) involved (including short-term visiting academics).

Courses: BS50, BS56

Prerequisites: As deemed appropriate to local topic.

Credit Points: 12 **Contact Hours:** 3 per week

■ MGB216 TECHNOLOGY MANAGEMENT

Explores the links between research, technical process, product innovation and management structure, policy and practice. Emphasises the consequences of changes to technologies for the organisation, for example, in information technology. It further examines the internal operation of organisations, with particular respect to management (of human, material and financial resources), technological innovations, and social change; the nature of product and process innovation, and technology transfer; intellectual property and licensing; evaluating technology; key technology areas (e.g. government policy and assistance) and research and development in technology.

Courses: BS50, BS56

Prerequisites: BSB102 or HRN104 or MGB211

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRB140

■ MGB217 TRAINING & DEVELOPMENT I

Knowledge and competencies required of a beginning or an occasional trainer; theories, research and skill development; topics include: training in Australia; instructional models and theories of learning; training needs analysis; task analysis process; basic training techniques: skill model, information giving model, discussion model; training aids/audiotutorial; administering a training course; evaluating learning, writing and scoring test items; following-up training.

Courses: BS50, BS56

Prerequisites: HRN104 or completion of 84 credit points

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRB120

■ MGB218 VENTURE SKILLS

Designed to develop student skills in business planning and business analysis. This is a preparatory unit for units that carry out in-depth business planning and analysis. The types of learning carried out in this unit is to develop skills in business planning for small businesses. The analysis of business includes how to analyse cases and actual small business operations.

Courses: BS50, BS56

Prerequisites: HRB130 and HRB131, or MGB207 and MGB211

Credit Points: 12 **Contact Hours:** 3 per week

■ MGB219 WORK & SOCIETY

The theoretical and research aspects of work and the organisation of work in industrialised society, the relationship with industrial relations processes and structures, examination of the various perspectives which deal with control systems, work practices and technical change.

Courses: BS50, BS56

Prerequisites: HRB131 or HRN105 or MGB207 and MGB211

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRB138

■ MGB300 ADVANCED ORGANISATIONAL BEHAVIOUR

Investigates and analyses major organisational behaviour issues from the viewpoints of organisational effectiveness and quality of work life, using three frames:

learning in organisations, actors in organisations, and organisations as political arenas. Thorough examination of literature and research, an emphasis on data gathering, analysis, and evaluation skills. Macro level issues are considered. Concepts are applied via case studies, surveys, and/or projects.

Courses: BS50, BS56

Prerequisites: HRB104 and HRB130 or 192 credit points, including MGB211 and MGB315

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRB100

■ MGB301 ADVOCACY

Skills in preparing a case and conducting it before a variety of industrial tribunals, rules of evidence in Magistrates' Courts, the Australian Industrial Relations Commission, and where rules of evidence do not apply, significant industrial legislation (industrial relations, workers' compensation, anti-discrimination, and workplace health and safety).

Courses: BS50, BS56

Prerequisites: HRB131 or HRN105 or MGB201 and MGB204

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRB102

■ MGB302 COOPERATIVE ORGANISATION

The development of cooperative relations across social, organisational, cultural and geographical boundaries from a theoretical and practical point of view. Types of cooperative arrangement will be examined including networks, strategic alliances, social partnerships, cooperatives, and labour-management cooperation. Structural and behavioural issues will be addressed.

Courses: BS50, BS56

Prerequisite: MGB212
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: COB108

■ MGB303 ENTREPRENEURSHIP

Examines the processes of small business start up in terms of developing skills and knowledge entrepreneurship and new venture creation. Examines the entrepreneur in terms of entrepreneurial personality theories, entrepreneurial management and intrapreneurship. New venture creation deals with business planning and resourcing a business start-up. New venture creation develops skills and knowledge for students to analyse and manage the external environment of a small business start-up. Additionally students develop skills and knowledge on how to design and manage over time the internal operations and response to the external environment of a start-up firm.

Courses: BS50, BS56

Prerequisites: BSB102 or HRN104, or MGB207 and MGB211 and BSB110

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRB116

■ MGB304 HUMAN RESOURCE PLANNING & INFORMATION SYSTEMS

Detailed examination of organisational strategy, business plans and link with human resource planning; quantitative and qualitative approaches to prediction. Careers, career management, succession planning, downsizing. Extensive reference to the role, design and use of computerised human resource information systems as the database facilitating human resource planning and managerial decision making.

Courses: BS50, BS56

Prerequisite: MGB328
Credit Points: 12 **Contact Hours:** 3 per week

■ MGB305 HUMAN RESOURCE MANAGEMENT STRATEGY & POLICY

This is the capstone of the HRM extended major. The primary objective is to integrate HR concepts and issues

into the wider business and environmental context; a range of historical features, professional and ethical matters are considered; policy development and evaluation is examined; an experiential approach based in cases and/or simulations is adopted.

Courses: BS50, BS56

Prerequisites: HRB105 or HRN104 or completion of 96 credit points from HRM units

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRB136

■ MGB306 INDEPENDENT STUDY

Enables students to demonstrate an ability to direct their own learning, a key competence for professionals who must keep themselves up to date in their area of expertise; students either individually or in small groups, undertake one or several learning activities with the approval of a supervisor; appropriate activities include literature review, research (mini-thesis), project, practicum (work placement), or alternative deemed acceptable by the supervisor.

Courses: BS50, BS56 **Prerequisite:** 192 credit points
Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: HRB151

■ MGB307 INTERNATIONAL HUMAN RESOURCE MANAGEMENT

Overviews international business management, and develops a strategic appreciation of the role of human resources management in an international context. Specific human resource processes are detailed, including: expatriate selection, cross-cultural training, management, and remuneration; global management; and the competencies required to manage a culturally diverse workforce, the relationship between international human resource management and international industrial relations, and contemporary research in international human resource management.

Courses: BS50, BS56

Prerequisites: HRB131 or HRN104 or MGB207 and MGB211

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRB117

■ MGB308 INTERNATIONAL INDUSTRIAL RELATIONS

Industrial relations processes which operate under a range of social, economic, cultural and political arrangements; European and Pacific-rim systems.

Courses: BS50, BS56

Prerequisites: HRB131 or HRN105 or MGB219

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRB150

■ MGB309 MANAGEMENT POLICY & STRATEGY

Presumes previous studies in management areas. Provides students with an ability to understand and participate in the formulation and implementation of management policy and strategy. Emphasises a critical analysis of the literature in the field of strategic management and the effect this has had on the processes adopted by different organisations. As a capstone unit, it gives students the opportunity to analyse synergies between the various strands of their major and to develop skills in influencing the strategic direction of organisations.

Courses: BS50, BS56

Prerequisites: BSB102 and HRB127 (recommended), or MGB303

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRB125

■ MGB311 MANAGING CHANGE

Builds on introductory and intermediate units in management and is designed to equip managers with an

understanding of the management of change in a variety of organisational and contextual settings. Explores the certainty of uncertainty and its implications for management. Emphasis is placed on developing change management skills, through a program of skills development embedded in a sound understanding of relevant theory.
Courses: BS50, BS56 **Prerequisites:** MGB206
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: COB102

■ MGB312 NEGOTIATION & COLLECTIVE BARGAINING

Theory of negotiation, the basic concepts of integrative and distributive bargaining, process and phases of negotiation in practice, negotiating enterprise bargaining agreements.

Courses: BS50, BS56

Prerequisites: HRB131 or HRN105 or MGB201 and MGB204

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRB102

■ MGB313 ORGANISATIONAL CHANGE & DEVELOPMENT

A range of interventions designed to improve an organisation's capacity to actively adapt to its environment. Interventions oriented to various levels of analysis will be covered, e.g. individual, interpersonal, group, intergroup, organisational, and the organisation in its broader context.

Courses: BS50, BS56

Prerequisite: MGB314

Credit Points: 12 **Contact Hours:** 3 per week

■ MGB314 ORGANISATIONAL CONSULTING & COUNSELLING

Conceptual and theoretical bases of consulting and counselling; relationship building, diagnosis, intervention, and evaluation. Personal and interpersonal skills of the consultant/counsellor developed to a substantial level. Emphasis is placed on designing process to achieve outcomes.

Courses: BS50, BS56

Prerequisites: MGB207 and MGB211

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: COB102

■ MGB315 PERSONAL & PROFESSIONAL DEVELOPMENT

Develops personal, interpersonal and professional competencies (in both cognitive and affective domains) necessary in a human resource or management professional. Develops personal awareness and understanding, interpersonal competencies, and professional behaviour and ethics. Also examines influence processes, negotiation and conflict resolution, stress management and personal career management. Throughout, it emphasises the design of processes to achieve outcomes and skills of reflective practice.

Courses: BS50, BS56

Prerequisites: COB129 or HRB130 or HRN108 or MGB207 and MGB211

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRB104

■ MGB316 POLICY IMPLEMENTATION & EVALUATION

Examines the implementation and evaluation of policies and strategies by examining appropriate frameworks, structures, dynamics and delivery systems. Conceptual developments in implementation and evaluation are applied to case studies of public policies, programs and national strategies. This unit explores both micro and macro analytical methodologies including the development of monitoring systems and performance indicators. Issues to be analysed include policy coordination, policy

communities, institutional relationships and networks.

Courses: BS50, BS56

Prerequisite: EPB159 or MGB205

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: EPB155

■ MGB317 POLITICAL & ADMINISTRATIVE ANALYSIS

Develops an understanding of the dynamic and contested relationship between political theory and the practices of government administration. Explores the central theoretical conceptions of the modern state (liberal-pluralist, elitist, variants of Marxism and the 'new right') which have been the main source of political and administrative analysis and debate. The emphasis is on the analytical and administrative insights of each perspective, although their ideological, political and institutional implications also will be examined.

Courses: BS50, BS56

Prerequisite: MGB205

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: EPB100, EPB112, EPB156

■ MGB318 PUBLIC POLICY

Provides a thorough understanding of policy processes by means of a detailed study of relevant literature, Acts, and programs (i.e. policy instruments). Policy models and frameworks will assist students to understand how policy should be developed. Policy analysis frameworks will assist students to understand how policies are developed (i.e. the 'is'/'ought' dichotomy).

Courses: BS50, BS56

Prerequisites: MGB205

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: EPB159

■ MGB319 QUALITY MANAGEMENT

Introduction to the role of quality in the modern organisation, relation between quality management and strategic management as a total management philosophy; international quality programs and implications for Australia; organising for quality.

Courses: BS50, BS56

Prerequisites: BSB102 or HRN104 or MGB210

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: HRB403

■ MGB320 RECRUITMENT & SELECTION I

Draws on conceptual and research foundations established in MGB328. Examines the environment of recruitment and selection, especially legal requirements. Recruitment is considered from the perspective of both the organisation and the individual. Recruitment strategies are evaluated. Basic selection strategies are examined. Skills in planning and conducting interviews are developed. Technical issues include validity, reliability and utility analysis.

Courses: BS50, BS56

Prerequisites: HRB105 or HRP110 or MGB328

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: HRB134

■ MGB321 RECRUITMENT & SELECTION II

Examines advanced selection strategies. Sophisticated use of biographical data; aptitude, ability, and personality testing; work samples; assessment centres; previous performance. Data manipulation and decision making processes. Selection for particular occupational groups. Workshop and experiential project activities.

Courses: BS50, BS56

Prerequisite: MGB320

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: HRB134

■ MGB322 REMUNERATION MANAGEMENT

Examines remuneration management processes and practices in the environment of enterprise bargaining and employment contracts. Structure and effects of remuneration packages. Examination of range of types of remuneration, and the advantages and disadvantages of each. Remuneration in the context of organisation strategy and policy.

Courses: BS50, BS56

Prerequisite: MGB328

Credit Points: 12 **Contact Hours:** 3 per week

■ MGB323 SMALL BUSINESS MANAGEMENT

Deals with the role and importance of small business in Australia. It includes detailed considerations concerning managing the growth phase, as well as approaches to the management of a troubled firm. Operational areas requiring attention in small business management are looked at, as well as personal factors impinging on small business managers. Relations with government and sources of information and assistance are also considered.

Courses: BS50, BS56

Prerequisites: BSB102 or HRN104, and MGB218

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: HRB135

■ MGB324 THE VIRTUAL ORGANISATION

Organisational futures; working and managing in a real-time, no-boundaries context; interconnectivity; cultural diversity; role of technologies in the virtual organisation; implications for people and work futures.

Courses: BS50, BS56

Prerequisite: MGB212

Credit Points: 12 **Contact Hours:** 3 per week

■ MGB325 TRAINING & DEVELOPMENT II

Planning and programming management and supervisory development; career planning; developing a complete training program; advanced training techniques: case study, role play, laboratory training, simulations, games, programmed instruction, computer assisted instruction, individualised learning, video and learning; managing the training and development function; the competencies of a trainer. Experiential and project activities.

Courses: BS50, BS56

Prerequisite: HRB120 or MGB217

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: HRB101

■ MGB326 UNDERSTANDING ORGANISATIONS

Classical and contemporary theory and issues associated with understanding work, industry and organisation. Critical analysis of formal organisations as an important social invention; economic explanations of organisation and industry, the behaviour of firms and work experience in them; critical review of theoretical perspectives on these issues.

Courses: BS50, BS56

Prerequisite: MGB212

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: COB103, COB129

■ MGB327 WAGES & EMPLOYMENT

Determination of wage and employment levels; the various types of labour markets; collective bargaining and skill formation processes; the relationship between these aspects and industrial relations institutions.

Courses: BS50, BS56

Prerequisites: HRB131 or HRN105 or MGB201 and MGB204

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: HRB137

■ MGB328 WORK & PERFORMANCE

Builds on material covered in MGB207, and focuses in depth on the theory and practice of job design and analysis, performance management, job evaluation, and remuneration management; examines the theoretical measurement and methodological foundations of human re-

source management.

Courses: BS50, BS56

Prerequisite: HRB131 or HRN104 or MGB207

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: HRB105

■ MGB329 WORKPLACE INDUSTRIAL RELATIONS

The various dimensions of traditional and contemporary workplace industrial relations including enterprise bargaining, the role of union delegates and joint shop committees, consultation and participation structures and processes, custom and practice, and grievance and disciplinary procedures; the role of management and supervision, and policies and strategies in industrial relations.

Courses: BS50, BS56

Prerequisite: MGB219

Credit Points: 12 **Contact Hours:** 3 per week

■ MGB330 INTERNATIONAL MANAGEMENT

This unit presumes an understanding of the basic principles of management and provides students with a critical perspective of issues affecting international management. These issues include: culture, the Australasian political-economy, government policies, and strategic alliances. The orientation is managerial, not fiscal. Such knowledge enhances the contribution of students in their discussions about international management in the workplace.

Courses: BS50, BS56

Prerequisite: MGB206

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: BSB300, HRB118

■ MGN001 MANAGEMENT OF ENGINEERS

The staffing function: leadership and motivation principles and their application; time management; stress management, industrial relations systems and issues; personal and organisational communication; managing change, strategic management and the development of full, commercial business plans.

Course: ME76

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: HRN113

■ MGN400 AUSTRALIAN INDUSTRIAL RELATIONS

Industrial relations practices and policies; enterprise bargaining and industry awards; institutional framework of industrial relations practices in Australia.

Courses: BS30, BS74, BS93, GS70, GS80, GS81

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: HRP104

■ MGN401 COMPARATIVE INDUSTRIAL RELATIONS

The main structures, processes and contexts relevant to industrial relations; comparative industrial democracy; the comparative method, international strategies and national performance; Japan, Sweden and Britain as industrial relations models.

Courses: BS30, BS74, BS93, GS70, GS80, GS81, IF64

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: HRP100

■ MGN402 GOVERNMENT-BUSINESS RELATIONS

The relationship between government and business, especially in Australia; the historical development of the relationships that exist between the private and public sectors and of the impact that the policy decision of each has on the operations of the other. Case studies are used to explore these relationships and contemporary trends.

Courses: BS30, BS70, BS78, BS91, GS70, GS80, GS81

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: EPN101

■ MGN403 HUMAN FACTORS IN QUALITY

Quality: an issue about business and people; leadership for quality improvement; motivation for quality improvement; paradigm shift; business as teamwork; quality improvement and human resources; employee participation strategies; training and education; ergonomics, technology and a human environment; quality of products and services.

Course: IF69

Credit Points: 6 **Contact Hours:** 3 per week

Incompatible with: HRP102

■ MGN405 INDUSTRIAL RELATIONS AND THE ECONOMY

Economic and political context pertinent to industrial relations; aspects of theories of political economy related to labour and production; issues in political and economic strategies and policies relevant to industrial relations, for example, social welfare, income distribution and unemployment.

Courses: BS30, BS74, BS93, GS70, GS80, GS81, IF64

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: HRP106

■ MGN406 INDUSTRIAL RELATIONS PROCESSES

Negotiation practices in industrial law; elements and techniques of advocacy; case preparation and research; industrial tribunal representation.

Course: BS74

Prerequisite: HRP104

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: HRP105

■ MGN407 INDUSTRIAL RELATIONS STRATEGIES AND POLICIES

Examination of policy formation in industrial relations at national and local levels in areas including wage policies, job security, job design, bargaining structure and union matters.

Courses: BS30, BS74, BS93, GS70, GS80, GS81, IF64

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: HRP103

■ MGN408 INDUSTRIAL RELATIONS THEORY

The resolution and regulation of conflict in work and employment; theories of collective organisation; bipartite and tripartite schema of labour market regulations and workplace process.

Course: BS74

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: HRP107

■ MGN409 INTRODUCTION TO MANAGEMENT

The functions and roles of managers; concepts and principles and their practical applications; the key management functions; areas of planning, organising, staffing, directing and controlling; production/operations management and the management of quality; entrepreneurship and business planning; important problems, opportunities and trends facing managers in Australia analysed from the viewpoint of relevant academic disciplines.

Courses: BS74, BS78, BS81, ED23, GS70, GS80

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: HRN104

■ MGN410 LABOUR-MANAGEMENT RELATIONS

Employee relations; employee and union action; the role of governments and industrial tribunals; alternative methods and pressures to change traditional Australian systems; the Australian system of labour-management relations; systems of regulation in the employment area; negotiating skills; the resources required for mobilising change in this area.

Courses: BS30, BS71, BS78, BS81, BS91, ED23, GS70, IF64

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRN105

■ **MGN411 MANAGEMENT OF SERVICE QUALITY**

Application of quality management principles to services and processes in service operations and organisations: marketing; differentiation of services from products; implications for management.

Courses: BS77, IF69

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRP112

■ **MGN412 PEOPLE IN ORGANISATIONS**

The internal operation of organisations and the behaviour of people in them; exploration of a range of theories and models of individual, group and organisational level influences on behaviour. This exposure encourages students to critically evaluate such theories and models, and the implications for management behaviour.

Courses: BS30, BS70, BS74, BS78, BS81, ED23, GS70
Prerequisite: HRN104

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRN108

■ **MGN413 QUALITY SYSTEMS MANAGEMENT**

Quality management principles and systems put a new perspective on management theories and practices; introduction to management theories and concepts; relation to and impact on strategic management of the range of quality issues.

Courses: BS77, IF69

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRP111

■ **MGN414 SOCIAL & ORGANISATIONAL CHANGE**

The origins, nature and effect of social change on individuals, organisations and communities; theories and models of change are used to explore planned and unplanned changes currently occurring, particularly as these relate to possible futures; emphasis is on the strategies and skills required to initiate and participate in effective change management.

Course: BS78

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: COP110

■ **MGN500 ADVANCED READINGS IN HUMAN RESOURCE MANAGEMENT I**

This unit permits students to explore in depth advanced theory, research, and issues of practice in human resource management.

Course: BS93

Credit Points: 12 **Contact Hours:** 3 per week

■ **MGN501 READINGS IN MANAGEMENT**

Examination in detail of advanced theory and issues from chosen disciplinary area. The object is to have students explore the breadth of their discipline in contrast to the more narrow focus of their thesis work. Students select advanced readings in their field and submit a comprehensive criticism and review. This work is carried out in consultation with the supervisor.

Courses: BS62, BS83, BS63, BS92, BS93

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRN118

■ **MGN503 ADVANCED THEORY & COMPARATIVISM**

The historical and cultural factors of industrial relations; social theory and industrial relations, explanations of institutional development and the political economy of

industrial relations; government intervention in industrial relations and current developments in Australia, the EEC and South East Asia.

Courses: BS62, BS83, BS93

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRN101

■ **MGN504 BUSINESS POLICY**

Develops a manager's knowledge, analytical understanding and action-taking competencies. The paradigm adopted is that of strategic management: analyses of stakeholders, environments and capabilities, strategy formulation, and strategy implementation. Teaching methodologies emphasise the process of management as well as analysis, content and concepts. At the conclusion of this unit, students should understand how and why strategic decisions are made, and be prepared to make them.

Courses: BS70, BS81, BS86, IF64, IF66

Prerequisite: 72 credit points from MBA core or approval of Course Coordinator

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRN112

■ **MGN505 CONSULTING & CHANGE MANAGEMENT**

The origins, nature and effect of social change on individuals, organisations and communities; theories and models of change will be used to explore planned and unplanned changes currently occurring, particularly as these relate to possible futures; emphasis will be on the strategies and skills required to initiate and participate in effective change management.

Course: BS93

Prerequisites: GSN208

Credit Points: 12 **Contact Hours:** 3 per week

■ **MGN506 CONTEMPORARY ISSUES IN HRM**

Postgraduate students need to be familiar with the contemporary issues and the current theoretical and practical developments within their field of specialisation. These matters need to be pursued at a level of intellectual rigour beyond that required for an undergraduate degree. The main objective of this unit is to identify, analyse and report on contemporary issues in HRM. To research information relevant to identified topics. Content may vary according to which issues are current or predictably important in the future. Special expertise of staff, visiting scholars or distinguished HRM professionals may be utilised.

Courses: BS62, BS83, IF66, BS63, BS92, BS93

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRN115

■ **MGN507 CONTEMPORARY ISSUES IN MANAGEMENT**

Students examine in detail advanced theory and issues from their chosen field of study. Such study may include an analysis of the historical developments in the field, interconnections with other fields, current significant issues and practices (including ethics), and advanced methodology and/or statistics relevant to the field. The content may vary according to which issues are significant at the time, according to the special expertise of the staff (including visiting scholars and distinguished business leaders) and according to specific needs from thesis proposals.

Courses: BS62, BS83, BS63, BS92, BS93

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: HRN119

■ **MGN508 HRM CASES**

Further development of students' capacity to analyse, evaluate and solve business problems and encourages them to develop the facility for independent thought and critical analysis. In this unit students are required to: (a)

examine a HR function in an organisation, and report observations; (b) relate these observations to relevant theory and recent research; and (c) develop an integrated view of HR, including its functions, processes, stakeholders, and environment. Finally, the unit will focus on any conceptual, theoretical, research or practical material relevant to the cases.

Courses: BS62, BS83, BS63, BS92, BS93

Credit Points: 12 Contact Hours: 3 per week
Incompatible with: HRN116

■ MGN509 HUMAN RESOURCE MANAGEMENT PROJECT I

This unit provides the opportunity for students to undertake an approved project to develop and enhance learning associated with the coursework elements of human resource management.

Course: BS93

Credit Points: 12 Contact Hours: 3 per week

■ MGN510 HUMAN RESOURCE MANAGEMENT PROJECT II

This unit provides the opportunity for students to undertake an approved project to develop and enhance learning associated with the coursework elements of human resource management.

Course: BS93

Credit Points: 12 Contact Hours: 3 per week

■ MGN511 IMPLEMENTING & SUSTAINING TOTAL QUALITY MANAGEMENT

The management issues that need to be addressed in implementing a sustainable structure for TQM. These include the definition of an appropriate structure based on organisational strengths and weaknesses, and the development of a strategy for implementation.

Course: IF66

Credit Points: 12 Contact Hours: 3 per week

Incompatible with: BSN143

■ MGN512 INDUSTRIAL RELATIONS & WORK ORGANISATION

This unit will encourage students to develop critical awareness of current debates in the area. It will also develop the students' critical, analytical and intellectual powers at an advanced level. It will connect the social, organisational and legislative aspects of industrial design relation within an analytical framework, and will enhance knowledge of workplace studies. Through this unit students are introduced to the social aspects of industrial organisation and industrial relations. Workplace studies are included and associated legislative aspects. Concepts such as the new 'Managerialism' are explored.

Courses: BS62, BS83, BS93

Credit Points: 12 Contact Hours: 3 per week

Incompatible with: HRN117

■ MGN513 LEGAL & INDUSTRIAL REQUIREMENTS

The industrial relations and legal issues addressed in implementing TQM. These include the Australian industrial system, the requirements for occupational health and safety and the role of trade unions.

Courses: BS86, IF66

Credit Points: 6 Contact Hours: 3 per week

Incompatible with: HRN114

■ MGN514 MANAGEMENT PROJECT I

This unit provides the opportunity for students to undertake an approved project to develop and enhance learning associated with the coursework elements of management.

Course: BS93

Credit Points: 12 Contact Hours: 3 per week

■ MGN515 MANAGEMENT PROJECT II

This unit provides the opportunity for students to undertake an approved project to develop and enhance learning associated with the coursework elements of management.

Courses: BS93

Credit Points: 12 Contact Hours: 3 per week

■ MGN516 POLICY ANALYSIS

A central aim of the program is to develop skills in the analysis of policy content and policy process. It provides a basic methodological framework for the systematic development of those skills with two related objectives: (a) to examine a range of models of public policy processes with a view to determining their validity and utility, and (b) to develop a capacity for policy analysis, utilising a variety of conceptual frameworks. Topics include: policy design, formation and implementation, and theories of policy.

Courses: BS62, BS83, IF64, BS93, GS81, GS70, BS30

Prerequisite: An undergraduate degree

Credit Points: 12 Contact Hours: 3 per week

Incompatible with: EPN104

■ MGN517 PROGRAM MANAGEMENT & EVALUATION

Understanding of program management and evaluation in the public sector, with an emphasis on skills development; theory and methodology of evaluation research; qualitative and quantitative tools and the application of these to a public sector program.

Courses: BS62, BS83, IF64, BS93, GS81, GS70, BS30

Prerequisites: An undergraduate degree

Credit Points: 12 Contact Hours: 3 per week

Incompatible with: EPN106

■ MGN518 PROJECT

Students undertake an analytic study of approaches to TQM implementation that forms a basis for development of an approach to implementation tailored to a particular organisation. This forms the groundwork for unit BSN150. The project report covers either (a) a detailed study of the strengths and weaknesses of the quality approach of a particular organisation, or (b) a critical review of approaches to TQM reported in the literature.

Course: IF66

Credit Points: 12

Incompatible with: BSN149

■ MGN519 PROJECT

Students undertake an in-depth study of the practical requirements for implementing a TQM approach, either within a specific organisation or across a range of organisations. By integrating this practical study with the theoretical content of other units, students develop skills that enable them to take a leading role in developing and implementing an organisational strategy based on quality. The project report covers either (a) a critical analysis of the approaches used in a particular organisation for the implementation of a quality program, together with a detailed plan for future developments or (b) a research-based report on the applicability and implementability of TQM. This may focus on broad theoretical issues or on a particular industry. The precise scope is developed in consultation with the Course Coordinator.

Course: IF66

Credit Points: 24

Incompatible with: BSN150

■ MGN520 RESEARCH DISSERTATION

All students undertake a research dissertation. Each student is assigned to a supervisor, subject to the approval of the Course Coordinator, in consultation with the relevant Head of School. In general, the supervisor provides guidance in relation to the choice, preparation and submission of the dissertation. Supervisors are appointed

when students commence the research seminar unit. The supervisor shall not be an examiner of the dissertation. The dissertation is examined by an examining committee of at least three, appointed by the Dean, and consists of at least two examiners, one of whom may be external to the university, plus the Course Coordinator, who acts as chair of the committee.

Course: IF64 Credit Points: 48
Incompatible with: BSN151

■ **MGN521 RESEARCH METHODOLOGY**

Equips students with a range of ideas and methods allowing them to analyse, evaluate and conduct research in discipline areas within the fields of study. Essential preparation for the thesis. Areas include: science and knowledge – paradigms; analysis and criticism; research design; data collection; data manipulation and interpretation; presentation.

Courses: BS62, BS83, BS85, BS63, BS92
Credit Points: 12 Contact Hours: 3 per week
Incompatible with: BSB400

■ **MGN522 RESEARCH SEMINAR**

Quality in policy research requires sound understanding of appropriate research methodologies, their design and implementation. This unit is intended to help provide the student with that understanding, tailored to the specific needs of individual research dissertations. It provides a particular focus upon methods and techniques relevant to evaluation research.

Courses: BS62, BS78, BS81, BS83, IF64, BS63, BS92
Credit Points: 12 Contact Hours: 3 per week
Incompatible with: EPN118

■ **MGN523 SCIENCE & TECHNOLOGY POLICY**

This course assists students in understanding science and technology policy. It is structured into two parts. The first examines policy structures and processes whilst the second examines science and technology policy issues which are sector specific. The latter part of this course has a particular focus on policy and the issues are sector specific. The latter part of this course has a particular focus on policy and the commercialisation of technology although issues relevant to other sectors are also addressed.

Courses: BS62, BS78, BS81, BS83, IF64, GS80, GS81, GS70, BS30
Prerequisites: Undergraduate degree or equivalent
Credit Points: 12 Contact Hours: 3 per week
Incompatible with: EPN119

■ **MGN524 SPECIAL TOPIC IN MANAGEMENT I**

This unit allows students to undertake specialised study on a topic area relevant to particular needs. It permits an in-depth examination of an issue of importance. The content varies depending the issue examined, and the academic member(s) involved (including short-term visiting academics).

Course: BS93
Credit Points: 12 Contact Hours: 3 per week

■ **MGN525 SPECIAL TOPIC IN MANAGEMENT II**

This unit allows students to undertake specialised study on a topic area relevant to particular needs. It permits an in-depth examination of an issue of importance. The content varies depending the issue examined, and the academic member(s) involved (including short-term visiting academics).

Courses: BS93
Credit Points 12 Contact Hours: 3 per week

■ **MGN526 ADVANCED READINGS IN MANAGEMENT II**

This unit permits students to explore in depth advanced

theory, research and issues of practice in management.
Course: BS93

Credit Points: 12 Contact Hours: 3 per week
Incompatible with: HRN118

■ **MGN527 ADVANCED READINGS IN HUMAN RESOURCE MANAGEMENT II**

This unit permits students to explore in depth advanced theory, research and issues of practice in human resource management.

Course: BS93
Credit Points: 12 Contact Hours: 3 per week

■ **MGN528 SPECIAL TOPIC IN HRM I**

This unit allows students to undertake specialised study on a topic area relevant to particular needs. It permits an in-depth examination of an issue of importance. The content varies depending the issue examined, and the academic member(s) involved (including short-term visiting academics).

Courses: BS93
Credit Points: 12 Contact Hours: 3 per week

■ **MGN529 SPECIAL TOPIC IN HRM II**

This unit allows students to undertake specialised study on a topic area relevant to particular needs. It permits an in-depth examination of an issue of importance. The content varies depending the issue examined, and the academic member(s) involved (including short-term visiting academics).

Courses: BS93
Credit Points: 12 Contact Hours: 3 per week

■ **MGN600 DISSERTATION**

This unit is a culmination of a research degree in that students apply theory and research material to explore in some depth an applied or theoretical topic in their chosen field. Students develop a research topic, collect information about that topic from primary and/or secondary sources, evaluate the evidence and arguments, and present the results of that critical assessment in an organised and logical form. The thesis consists of a substantial written report. Honours theses of 48 credit points could be expected to contain about 20 000 words. The thesis is assessed by two examiners, one of whom must be external to QUT. Students select a supervisor to assist them with the development and implementation of their research topic. They negotiate a learning contract which stipulates among other things the frequency and duration of meetings with the supervisor, and the timetable for submission of interim and final reports. Planning for the thesis should begin as early as possible, allowing lead units to be keyed to the thesis as appropriate.

Courses: BS62, BS83, BS63, BS92
Prerequisites: BSB400 and two of three major units
Credit Points: Students enrol in sequential 12 credit point theses units commencing with MGN600 until they have completed the requisite number of thesis credit points. Progress is assessed at the end of each semester. Note that each thesis is assessed on one major report submitted at the completion of all necessary thesis units.
Incompatible with: BSN144

■ **MGN601 THESIS**

This unit is a culmination of a research degree in that students apply theory and research material to explore in some depth an applied or theoretical topic in their chosen field. Students develop a research topic, collect information about that topic from primary and/or secondary sources, evaluate the evidence and arguments, and present the results of that critical assessment in an organised and logical form. The thesis consists of a substantial written report. Ordinarily this would involve a report of up to 60 000 words of examinable material for a 144 credit point thesis.

Courses: BS62, BS83, BS92

Prerequisite: BSN144

Credit Points: Students enrol in sequential 12 credit point thesis units commencing with BSN145/1 until they have completed the requisite number of thesis credit points. Progress is assessed at the end of each semester. Note that each thesis is assessed on one major report submitted at the completion of all necessary thesis units.
Incompatible with: BSN145

■ MGX001 SAFETY AND INDUSTRIAL RELATIONS

Current systems and practices in occupational safety and health programs. Industrial relations system in Australia and the management techniques which may be employed to create a good industrial relations climate on a site or in an industry.

Courses: CE21

Credit Points: 7 **Contact Hours:** 2 per week
Incompatible with: HRX111

■ MIB001 MARKETING (INFO TECH)

Definition of marketing including its fit into strategic plans of firms or institutions, either profit or non-profit; full explanation of components of the marketing mix with emphasis on a systems approach. The components of the marketing mix defined as price, promotion, product and distribution; the integration of the above elements with branding, packaging sales and sales promotion to create the marketing plan.

Courses: BS56, CS28, IS28, IS10, IS43

Credit Points: 12 **Contact Hours:** 3 per week

■ MIB002 PROPERTY MARKETING

Characteristics of the Australian property market, the nature of marketing problems. The marketing plan: the mix, implementation of plan and sales forecast; pricing decisions, approaches to selling; consideration of sales particulars and auction catalogues. Promotional decisions: determination of budget size; media decision and sales promotion; technological advances and market changes. Real estate brokerage and the application of marketing principles to residential, commercial, industrial, special and overseas properties. Negotiation skills development.

Course: BS56

Credit Points: 7 **Contact Hours:** 3 per week

■ MIB200 ASIAN BUSINESS DEVELOPMENT

In this subject students will undertake an analysis of economic change in Asia since 1820. Material presented will cover the response of Japan, China and Southeast Asia to European intrusion and the growth of the international economy. Topics studied will include: the economic consequences of colonisation; the impact of war; technological change; ideology and development policies; ASEAN; the rise of the NICs.

Courses: BS50, BS56 **Prerequisite:** BSB116

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPB105

■ MIB201 AUSTRALIAN EXTERNAL AFFAIRS AND BUSINESS

Australian business exists within a complex and dynamic global environment. An important part of the structure of that environment, especially as regards access to various national markets, is determined by national governments and a range of international agreements entered into by those governments. Australian governments play a vital role, through their various external affairs policies, in this system. The aim of this unit is to provide students with an understanding of external affairs policies in relation to business, their development and implementation.

Courses: BS50, BS56

Prerequisite: BSB114

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPB131

■ MIB202 BUSINESS AND THE WORLD ECONOMY

The focus of this unit is on the application of concepts from economics to the trade and finance problems of the international economy and their relationship to business. Topics covered include determination of a country's comparative and competitive advantage in international trade in a variety of industries. The economics and politics of trade policy, the multinational firm, trading blocs, strategic trade policy and the relationship between industries performance, trade and trade policy. International monetary arrangement (gold standard, Bretton Woods System, flexible exchange rates, currency reform); the role of political institutions in economic development (EMS, Maastricht Treaty), international debt and the increasing importance of emerging equity markets will be considered.

Courses: BS50, BS56

Prerequisites: BSB116 and BSB113 or EPB172 or EPB140 or EPB150

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPB132

■ MIB203 COMPARATIVE REGULATORY SYSTEMS

This unit is intended to provide the student with an understanding of the regulatory systems within which businesses operate, on a comparative and international basis. It examines the need for, and the development of, regulatory systems, followed by an examination of regulatory systems in relation to: individual and organisational transactions; business structures; the roles and duties of managers and employees in the workplace; capital; a selection of major industries; and theories of regulation.

Courses: BS50, BS56

Prerequisite: BSB114 or EPB124

Credit Points: 12 **Contact Hours:** 3 per week

■ MIB204 CONSUMER BEHAVIOUR

The field of consumer behaviour is young and dynamic. Its focus is the goods and services bought and used, and the ways in which these fit into individual lifestyles. The unit examines how individual characteristics such as motives, personality, lifestyles and attitudes; social variables such as culture, social class, and groups and situational variables can influence our decision making process and how this relates to marketing strategy.

Courses: BS50, BS56, IF56

Prerequisite: BSB116 or MKB140

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: MKB142

■ MIB205 CROSS CULTURAL COMMUNICATION & NEGOTIATION

This unit will analyse the complex interdependence between cultures, management philosophies, corporate strategies and business negotiations. It is designed to develop skills in managing and negotiating in the Asia-Pacific environment. The unit will assess the relationships among values, significant religions (e.g. Confucian ethics, Islam) and managerial and corporate communications behaviour in diverse environments; it will discuss communications, negotiation and management problems; and deal with socio-culture issues and behaviours which impact upon international firms.

Courses: BS50, BS56

Prerequisite: BSB117 or COB160

Credit Points: 12 **Contact Hours:** 3 per week

■ MIB206 ECONOMIC DEVELOPMENT

The economics of development of the Third World; ex-

amination and application of economic principles, alternative theories and policies to the understanding of significant development problems such as poverty, inequality, unemployment, debt, rural stagnation, economic stabilisation, resource depletion and sustainability. As these problems of development or underdevelopment are rooted in social and institutional causes as well as economic causes, the economic principles are combined with institutional and structural analyses to provide a better understanding of the problems.

Courses: BS50, BS56, ED50

Prerequisites: EPB140 and EPB150, or EPB172 or EPN102 or BSB113

Credit Points: 12 **Contact Hours:** 3 per week

■ **MIB207 ECONOMICS OF INFORMATION**

This unit will provide students with an understanding of the economics of information in an age when the production of and control of, information is of increasing importance. A variety of topics are covered, including: information as a commodity; the demand for information; the economics of the production of information; the costs of information; the cost, pricing and charging out of information within organisations; the market supply of information; information technology and supply curve, the structure of the information of industry; information and industry concentration; public good characteristics of information; government intervention and economic impacts.

Courses: BS50, BS56

Prerequisites: BSB113 or EPB172 or EPB140 or EPB150

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: EPB169

■ **MIB208 EUROPEAN BUSINESS DEVELOPMENT**

This subject will provide a survey of the economic development of Europe up to the Second World War focusing on the major factors involved in that development and their impact on business. Topics covered will include: demographic change; agriculture; trade and colonisation; transport and communications; financial institutions and capital accumulation; intellectual and religious movements; economic theories; the role of government; war and revolution; industrialisation; big business; the Great Depression and social change. Various countries will be used as case studies to illustrate the topics.

Courses: BS50, BS56

Prerequisite: BSB116

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: EPB120

■ **MIB209 EVENTS MARKETING**

This unit emphasises the significance of special events as tourism offerings which contribute to destination development. The scope of the special events industry and event typologies (including cultural, heritage, sporting and others), within the categories of hallmark, corporate and community based events are reviewed. Research of the marketing environment in which special events occur and analyses of markets and stakeholders will be examined relative to developing integrated marketing strategies. Segmentation of events markets, target marketing and positioning strategies will be studied in the context of specific events. The unit will focus on strategic marketing of events relevant to tourism and cultural growth. Marketing communication elements and the sponsorship function are highlighted in this context.

Courses: BS50, BS56, IF56

Prerequisite: MIB217 or MKB141 or an equivalent unit, with the approval of the Subject Area Coordinator

Credit Points: 12 **Contact Hours:** 3 per week

■ **MIB210 EXPORT MANAGEMENT**

This unit is aimed at providing the student with a fundamental understanding of how to plan, organise implement and control the export operations of an Australian business enterprise. The unit is highly applied and covers a range of topics which focus upon the managerial aspects of exporting goods and services to overseas markets. The managerial issues include: an understanding of the internationalisation process, export planning steps, intermediary decisions, transaction/transportation/insurance management issues, domestic and overseas regulatory aspects, and an investigation of overseas contemporary export management practices.

Courses: BS50, BS56, IF56

Prerequisite: BSB116

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: MKB143

■ **MIB211 GLOBALISATION AND BUSINESS**

This unit aims to introduce students to the nature of the international systems impacting upon business. It adopts an historical and thematic approach that traces the development of dominant factors over time, regions and industries. Specific issues include: the nature and extent of globalisation; the changing world economy; politics, business and the nation state; transnational corporations and the changing pattern of production, trade, investment; the internationalisation of key industries and sectors such as automobiles, electronics and services.

Courses: BS50, BS56

Prerequisites: BSB116

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: EPB133

■ **MIB212 INDUSTRY AND REGIONAL ANALYSIS**

The aim of this unit is to analyse the nature and structure of industry in national and international contexts in order to provide a suitable framework that can be used by students in the study of the specific industries they select for examination. Topics examined include: interindustry dependencies; regional and interregional linkages; demand analysis; transactions in information, goods, services and other products; network analysis; strategies in structured markets.

Courses: BS50, BS56

Prerequisite: BSB113 or EPB140 or EPB150 or EPB172

Credit Points: 12 **Contact Hours:** 3 per week

■ **MIB213 INTERNATIONAL MARKETING**

The aim of this unit is to provide students with a thorough understanding of the multiplicity of issues which impact on the development of international marketing strategies and plans and their operational implementation. The unit is highly applied and provides students with an opportunity to understand the importance of international marketing; examine and analyse environmental forces influencing international marketing decisions; screen, select and segment priority markets; be aware of the methodological issues involved in primary market research; design and develop an operationally sound international marketing plan; study the role of marketing strategy in the globalisation of business.

Courses: BS50, BS56, IF56

Prerequisites: MIB217 or MKB141

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: MKB149

■ **MIB214 MANAGEMENT OF SPORT AND RECREATION**

This subject will examine the development of sports and recreation management in an increasingly competitive and global leisure environment. It will examine the full range of management functions in the sports and recreation context, aiming to provide the student with a

comprehensive understanding of those functions in this applied context. Both continuing and special event environments will be investigated, with an emphasis upon project planning and control. Extensive use of case materials will illustrate the diversity characteristic of this sector.

Courses: BS50, BS56 **Prerequisite:** MIB222
Credit Points: 12 **Contact Hours:** 3 per week

■ MIB215 MARKETING LOGISTICS

Marketing logistics is concerned with the planning, development, maintenance and control of the system of supply and distribution activities that place the organisation's product or service in the hands of its customers. The subject is designed to enable students to: understand the importance of logistics; and make improvements that will increase customer service and reduce distribution costs. The subject involves the application of mainly quantitative models and techniques concerned with product flow from producer to consumer and covers: purchasing and procurement, manufacturing and distribution strategies, quality, inventory costs and control, warehousing and transportation, project network analysis, location and logistics planning. Plant visits are an important part of the learning process.

Courses: BS50, BS56, IF56
Prerequisite: MIB217 or MKB141 or MIB227
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: MKB136

■ MIB216 MARKETING DECISION MAKING

This unit provides a detailed examination of decisions in specific tactical and strategic areas of marketing and marketing management. These areas include sales forecasting, market analysis, product planning, pricing, promotion, distribution and other areas. Decisions are viewed from quantitative perspectives with emphasis on computer models and spreadsheets. A primary part of the course is devoted to a computer-based marketing simulation which provides a realistic decision-making environment.

Courses: BS50, BS56, IF56
Prerequisite: MIB217 or MKB141
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: MKB148

■ MIB217 MARKETING MANAGEMENT

The unit extends the student's knowledge of the fundamental principles covered in the foundation unit in the degree (Marketing & International Business) and focuses on the application of these concepts and theories within the business environment. Emphasis is on the role of the Marketing Manager at the Strategic Business Unit/Product Manager level with regard to their responsibilities in planning, developing and managing marketing activities. Theory is applied through the development of a marketing plan incorporating the pivotal steps of: environmental analysis; market segmentation, targeting and positioning; product development and management; the implementation issues in promotion, distribution and pricing.

Courses: BS50, BS56, IF56
Prerequisite: BSB116 or MKB140
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: MKB141

■ MIB218 MARKETING SPORT AND RECREATION

This subject will encompass the development of sports marketing strategies in an increasingly competitive and global leisure environment. In addition to product development, pricing and distribution elements, the subject will emphasise the importance of innovative promotion and sponsorship plans. Principles of sports mar-

keting will be supported by case analyses and guest lecturers from the sports sector.

Courses: BS50, BS56 **Prerequisite:** MIB222
Credit Points: 12 **Contact Hours:** 3 per week

■ MIB219 NORTH AMERICAN BUSINESS DEVELOPMENT

The aim of this unit is to provide the student with an understanding of the development of business and industry in the North American context since 1945. It will describe major patterns in the development of business, and the major social, economic, political and cultural factors determining those trends. Topics covered will include: the impact of the Second World War; capital and finance in American business development; agricultural developments; manufacturing industry; the rise of the service sector; transport and distribution; communications and media.

Courses: BS50, BS56 **Prerequisite:** BSB116
Credit Points: 12 **Contact Hours:** 3 per week

■ MIB220 ORGANISATIONAL MARKETS (BUSINESS TO BUSINESS MARKETING)

This subject addresses the special requirements and buyer behaviour of large-scale, bulk-buying customers, such as industrial, resellers and government buyers. There is growing recognition in marketing education that these markets constitute a powerful and essential part of world economy, being the preliminary source for retailing and manufacturing operations and the force behind major services sectors in supplying government and non-government services, including health, education and works. As such, organisational markets are the driving factor behind the economy's health, nationally and internationally.

Courses: BS50, BS56, IF56
Prerequisite: MIB217 or MKB141
Credit Points: 12 **Contact Hours:** 3 per week

■ MIB221 RETAIL INDUSTRY

The aim of this unit is to provide a detailed examination of the nature of the retail sector in Australia. It will commence with an examination of the development of the sector in the post 1945 era, followed by an examination of contemporary trends and issues. Students will have the opportunity of focusing on a particular segment of this very complex industry in order to develop a specialised understanding.

Courses: BS50, BS56
Prerequisites: BSB116 and BSB113
Credit Points: 12 **Contact Hours:** 3 per week

■ MIB222 SPORT AND RECREATION INDUSTRIES

This subject will examine the diverse organisations (private, public and not-for-profit) which comprise the sport and recreation industries; patterns of leisure behaviour and consumption; relationship between sport/recreation work and the economy; impacts of media, the environment, changing demographics and globalisation on the business of sport and recreation.

Course: BS56
Prerequisites: BSB116 and BSB115 or BSB102
Credit Points: 12 **Contact Hours:** 3 per week

■ MIB223 TECHNOLOGY AND INTERNATIONAL BUSINESS

This unit introduces the student to a conceptual analysis of evolution, the creation of knowledge, and the impact of technology in shaping the economic and commercial strategic agenda of the firm in the international environment. It concentrates on the determining factors of technology, the measurement of impact and patterns of development at a global level.

Courses: BS50, BS56

Prerequisite: BSB113 or EPB116 or EPB140 or EPB150

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: EPB173

■ **MIB224 TECHNOLOGY AND MARKETING**

This unit examines the impact of technology and technological change on modern marketing and marketing systems. New technology is forcing significant change in many traditional marketing processes, while at the same time providing unique opportunities for gaining access to customers and vital market data. The unit covers an assessment of the overall impact of new technology on marketing; planning and using database marketing techniques; the impact of information technology on marketing; using expert marketing systems technology and the role of the global information super highway and its impact on contemporary marketing practice. The unit is essentially applied and is taught using case studies, hands on computer laboratory work and individual projects for relevant work organisations.

Courses: BS50, BS56

Prerequisite: BSB116, BSB113 or EPB140 and EPB116 (or any introductory Economics unit)

Credit Points: 12 **Contact Hours:** 3 per week

■ **MIB225 TOURISM**

This unit will provide a detailed understanding of tourism in the domestic and international contexts, and their interaction. It will focus upon: the developing nature of tourism products and services; the significance of tourism in the domestic and international economies; tourism as a market process; government and tourism; managing tourism ventures; cultural and environmental dimensions of tourism; and contemporary issues and trends.

Courses: BS50, BS56, IF56

Prerequisites: BSB113 and BSB115 or BSB102 and any Economics unit

Credit Points: 12 **Contact Hours:** 3 per week

■ **MIB226 TOURISM MARKETING**

This unit explores services marketing within tourism contexts. It provides students with detailed understanding of the issues affecting the marketing of tourism destinations, elements of the destination mix and various tourist attractions. Services marketing techniques are explored within key elements of the destination mix at the regional, state, national and international levels.

Courses: BS50, BS56, IF56

Prerequisite: BSB116 or MKB140

Credit Points: 12 **Contact Hours:** 3 per week

■ **MIB300 CONTEMPORARY BUSINESS IN EUROPE**

The aim of this unit is to examine major issues in relation to business in contemporary Europe. It will build upon the historical understanding established in MIB208. The focus is a description and analysis of contemporary developments in relation to business, including: the growth of regional cooperation in Europe; business and regional cooperation; European Union policies and business; developments and opportunities in Eastern Europe; case studies in trading with Europe.

Courses: BS50, BS56

Prerequisite: MIB208 or EPB120

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPB121

■ **MIB301 CONTEMPORARY BUSINESS IN NORTH AMERICA**

The aim of this unit is to examine major issues in relation to business in contemporary North America, with a primary focus upon the USA. It will build upon the historical understanding developed in MIB219. The unit

commences with an examination of current macroeconomic and industry trends, and government policies in relation to business. It moves on to examine financial markets, North American businesses in world trade and finance, NAFTA and its impact, USA-Japan relations, and Australia-North American trade relationships.

Courses: BS50, BS56

Prerequisite: MIB219

Credit Points: 12 **Contact Hours:** 3 per week

■ **MIB302 CULTURAL INDUSTRIES ANALYSIS**

The objectives of this subject are to provide students with an understanding of the structure, conduct and performance of the cultural and artistic sector of our economy and develop and apply appropriate marketing skills and strategy for that sector. Topic areas include the development and structure of cultural industries and institutions, funding and subvention, estimating demand for cultural products, pricing arts products, corporate philanthropic practices, relationship marketing in the arts, the value of public cultural goods, trade leverage from cultural goods and an introduction to cultural economics.

Courses: BS50, BS56

Prerequisites: BSB113 and MIB212

Credit Points: 12 **Contact Hours:** 3 per week

■ **MIB303 INTERNATIONAL LOGISTICS**

This unit builds upon MIB215. It provides an overview of international trade and then focuses upon: managing international distribution channels; network links; transport modes and modal interface systems; transport regulations; sourcing and supply of components; location of manufacturing plants and warehouses; information, communication; cost management; network audit and evaluation.

Course: BS56

Credit Points: 12 **Contact Hours:** 3 per week

■ **MIB305 MARKET RESEARCH**

The purpose of this subject is to provide students with a sound theoretical base in market research and to examine the practical problems encountered in the field. Its objectives are: to ensure students gain the knowledge to effectively buy and use market research; to give students the basic skills necessary to undertake simple market research projects; and to introduce more advanced market research subjects.

Courses: BS50, BS56, IF56

Prerequisite: MIB217 or MKB141

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: MKB151

■ **MIB307 PRODUCT INNOVATION AND MARKET DEVELOPMENT**

This subject deals with the dynamics of product innovation and product development within the mix of core marketing activities in organisations operating in both national and international markets. Products are defined in the broadest sense to include both tangible and intangible and the various categories of consumer, industrial, services, events and so on. The course covers such areas as product market analysis, design, innovation, research and testing, branding and packaging, and investment analysis. The learning methodology will be mostly experiential and will include some hands-on computer usage, visits to industry where relevant and specific practical exercises.

Courses: BS50, BS56, IF56

Prerequisite: MIB217 or MKB141 or MIB223

Credit Points: 12 **Contact Hours:** 3 per week

■ **MIB308 PROFESSIONAL MARKETING PRACTICE**

The aim of this unit is to provide the student with experience of professional practice in a suitable company

where they actively work on a part-time basis. Students undertake a preferred study program within the marketing framework. Students are required to submit a number of reports reflecting the theoretical concepts acquired during the degree program and how they might be applied in practice. The study program is drawn up in consultation with and on the approval of the lecturer.

Courses: BS50, BS56, IF56

Prerequisite: MIB217 or MKB151

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: MKB153

■ MIB309 PROMOTIONAL STRATEGY

This unit provides critical understandings of the linkage between the nature of marketing strategies adopted and decision making about the marketing or promotional strategy. There is a definite need for the marketing graduate to fully understand the characteristics of the market environment and business and marketing strategies in order to have an adequate information base to decide message positioning, choice of marketing communication or promotional mediums and balance of expenditure across these mediums. Such a unit will clearly enable students to both grasp theoretical and practical skills with regard to this essential marketing element.

Courses: BS50, BS56, IF56

Prerequisite: MIB217 or MKB141

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: MKB152

■ MIB310 RETAIL MARKETING

This unit is an introduction to the dynamics of the retailing industry. It provides the student with detailed knowledge of the way retail marketing is conducted nationally and internationally from both strategic and operational perspectives. The unit provides a balance of theory and application in topics such as retail institutions and the retail life cycle, macro and micro store location analysis, store layout, planning and design, merchandising promotion and stock planning, franchising and industry trends. Field trips and instore projects are an integral part of the learning process.

Courses: BS50, BS56, IF56

Prerequisite: MKB141 or MIB221 or SSB116

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: MKB145

■ MIB311 SERVICES MARKETING

This subject is concerned with the special characteristics of services and the marketing strategies needed to deal with those characteristics. Topics covered include the nature and classification of services; the differences between services and products and their implications for marketing strategy; the concept of productivity for services including the management of demand and supply; the search for service quality; customer service; distribution; and international trade in services.

Courses: BS50, BS56, IF56

Prerequisite: MKB141 or SSB116

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: MKB146

■ MIB312 SPECIAL TOPIC IN INTERNATIONAL BUSINESS

This is intended to be an 'open-ended' unit where the opportunity will be available for staff and visiting scholars to offer a specialised program of study.

Course: BS56

Prerequisite: MIB203

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPN110 unless the permission of the Course Coordinator is gained

■ MIB313 SPECIAL TOPIC IN MARKETING

This is intended to be an 'open-ended' unit where the opportunity will be available for staff and visiting schol-

ars to offer a specialised program of study.

Courses: BS56

Prerequisite: MIB217

Credit Points: 12 **Contact Hours:** 3 per week

■ MIB314 STRATEGIC BUSINESS ANALYSIS

A knowledge of international and domestic industry market trends and their specific impacts upon the organisation provides the basic data for the development of flexible strategic visions and plans. The aim of this unit is to provide an examination of major paradigms in strategic formulation and implementation, and to develop a synthesis of competing prescriptive and descriptive approaches. It will enable the development of an integrating framework to explore why organisations differ and how these differences, in terms of individual competencies and organisational capacities, provide for sustainable competitive advantage in domestic and international markets.

Courses: BS50, BS56

Prerequisite: MIB212 or MGB208 or MGB206

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: Business Policy or Strategic Management units from the Management Core Major

■ MIB315 STRATEGIC MARKETING

Strategic Marketing is the capstone marketing unit. Students are exposed to a variety of advanced marketing techniques and issues through lectures, seminars and case studies. Topics include: determining what marketing strategy can realistically accomplish for a business; identifying underlying factors that must be considered in developing marketing strategy; discussion of problems and their solution for successful marketing strategy implementation; bringing in the customer focus in developing marketing strategy; organising for successful strategy implementation.

Courses: BS50, BS56, IF56

Prerequisite: MIB217 or MKB141

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: MKB155

■ MIB316 TOURISM DEVELOPMENT

The operation and development of tourism markets is the central concern of this unit, building upon the base provided in MIB225. It focuses upon product and service development, demand and market strategies, using a variety of case study materials and analytical methods. At the completion of the unit the student will have an understanding of the economic context of tourism, the development of tourism markets, and the factors that contribute to successful tourism ventures.

Courses: BS50, BS56, IF56 **Prerequisite:** MIB225

Credit Points: 12 **Contact Hours:** 3 per week

■ MIB317 CONTEMPORARY BUSINESS IN ASIA

The business and cultural environments of Japan, China the NICs and ASEAN; the major Asian economies, their structure and related issues; social and institutional foundations of the economies concerned; interaction between Asia and Australia.

Courses: BS56

Prerequisite: MIB200 or EPB105

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPB108

■ MIN400 ARTS ADMINISTRATION AND SOCIETY

This unit is designed to familiarise students of arts administration with the structures, philosophies and policies of arts and cultural organisations in the local, national and international community and the processes involved in administering arts and culture in society. It focuses upon social, cultural, political and economic influences upon the arts; public policies on arts and culture, and associated funding processes; organisational

structures and planning; community, multicultural and regional arts; current research in arts administration.

Courses: GS70, BS30

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: MKP108

■ **MIN401 AUSTRALIAN FOREIGN AFFAIRS AND BUSINESS**

Australian business exists within a complex and dynamic global environment. An important part of the structure of that environment, especially as regards access to various national markets, is determined by national governments and a range of international agreements entered into by those governments. Australian governments play a vital role, through their various external affairs policies, in this system. The aim of this unit is to provide students with an understanding of external affairs policies in relation to business, their development and implementation.

Courses: BS93

Prerequisites: GSN101, or GSN204, or MGN516 or BSN408

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: EPN113

■ **MIN403 BUSINESS IN ASIA**

The aim of this unit is to enable a more intensive study of business and markets in Asia. The development of the major industries will be examined, together with major intra-regional patterns of trade, commerce and finance. Significant economic, political and social factors determining developments will be focused upon, as well as regulatory restraints governing market access. The student will be required to undertake a project which requires the application of knowledge of the region to a business issue.

Courses: BS63, BS92, BS93, GS80

Prerequisites: GSN101 or BSN408 or GSN204

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: EPB108, EPN110, unless the permission of the Course Coordinator is gained

■ **MIN404 BUSINESS IN EUROPE**

The aim of this unit is to enable a more intensive study of business and markets in Europe. The development of the major industries will be examined, together with intra-regional patterns of trade, commerce and finance. A particular focus will be the development of a single European market and its international implications. Significant economic, political and social factors determining developments will be focused upon, as well as regulatory restraints governing market access. The student will be required to undertake a project which requires the application of knowledge of the region to a business issue.

Courses: BS63, BS92, BS93, GS80

Prerequisites: GSN101 or BSN408 or GSN204

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: EPN110, unless the permission of the Course Coordinator is gained

■ **MIN405 BUSINESS IN NORTH AMERICA**

The aim of this unit is to enable a more intensive study of business and markets in North America. The development of the major industries will be examined, together with intra-regional patterns of trade, commerce and finance. A particular focus will be the development of NAFTA and its international implications. Significant economic, political and social factors determining developments will be focused upon, as well as regulatory restraints governing market access. The student will be required to undertake a project which requires the application of knowledge of the region to a business issue.

Courses: BS63, BS92, BS93, GS80

Prerequisites: GSN101 or BSN408 or GSN204

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: EPN110, unless the permission of the Course Coordinator is gained

■ **MIN406 COMPARATIVE REGULATORY SYSTEMS**

This unit will provide the student with a detailed understanding of the regulatory systems within which businesses operate, on a comparative and international basis. The major focus is upon Europe, Asia and North America. The development of regulatory systems and their impact upon actual or potential markets will be examined, especially in relation to significant differences that inhibit or enhance international business.

Courses: BS63, BS92, BS93

Prerequisites: 48 credit points from GS80 or GS81 or GS70 or MGN516

Credit Points: 12 **Contact Hours:** 3 per week

■ **MIN407 CONTEMPORARY ISSUES IN MARKETING**

This unit introduces emerging issues in marketing theory and the discipline of marketing, plus issues that may not have been covered earlier in the course but are nevertheless important. The specific issues covered each year will be negotiated with the staff members involved. Issues could include: pricing, market orientation, integrative marketing communication, organisational marketing, and public policy (for example, green marketing); Classes would usually include presentations by staff and by students who have worked individually or in groups to research issues.

Courses: BS85, BS61

Prerequisites: 48 credit points from GS80, GS81 or GS70 or an undergraduate specialisation in marketing

Credit Points: 12 **Contact Hours:** 3 per week

■ **MIN408 FUNDRAISING CAMPAIGNS**

This unit aims to develop an expertise in planning and implementing fundraising campaigns. Topics include: planning a complete campaign; defining relevant constituencies and appropriate means for linking these to target markets; budgeting and managing campaign elements; working successfully with boards and volunteers; evaluating fundraising efforts. Students undertake a group project in the form of an analysis of a fundraising campaign.

Courses: BS63, BS92, BS93

Credit Points: 12 **Contact Hours:** 3 per week

■ **MIN409 FUNDRAISING PRINCIPLES**

This unit examines the principles of fundraising, including: preparation of the case statement; planning methods; techniques for fundraising. The application of basic concepts from public relations, advertising, marketing and management are examined. Specific topics include: philosophy of fundraising and its role in society; budgeting; gift and capital campaigns; planned giving; researching and establishing prospect bases; procedures of solicitations; team building; volunteers; role of foundations.

Courses: BS63, BS92, BS93

Credit Points: 12 **Contact Hours:** 3 per week

■ **MIN411 INDUSTRY COMPETITION AND NETWORK ANALYSIS**

This unit aims to emphasise the need to identify and monitor those elements inside and outside a business upon which a sustainable competitive advantage is built. It builds concepts and tools (such as PIMS analyses) with which to analyse dynamic, competitive and collaborative forces within an industry. The industries involved in this unit will be both domestic Australian and international ones.

Courses: BS85, BS61

Prerequisite: MIN413 or MKN100

Credit Points: 12 **Contact Hours:** 3 per week

■ **MIN413 MARKET AND BUSINESS RESEARCH METHODS**

The aim of this unit is to provide an understanding of the issues underlying the conduct of market and other business related research. Issues include: identifying the research problem, ethical considerations, collecting and analysing data, computer programs, how to write a report and make a presentation to management. Teaching processes will include lectures, seminar discussions, group pilot research reports, and class presentations. The writing and presentation skills will be used through the rest of the course.

Courses: BS85, BS61

Prerequisites: An undergraduate specialisation in marketing

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: MKN100

■ **MIN414 MARKETING DECISION SYSTEMS**

Students of this unit will learn how to use computer programs to facilitate marketing decision making, and explore issues raised by information technology and the information highway. The computer programs may include spreadsheets, suites of programs for specific marketing decisions including forecasting, and SPSS. Issues may include the future impact on the future of marketing communication and distribution channels (including direct and database marketing), methods for dealing with information load/overload, customer acceptance of interactive media, and the effects of re-engineering on the marketing function.

Courses: BS85, BS61

Prerequisite: MIN413 or MKN100 or 48 credit points from GS80, GS81 or GS70

Credit Points: 12 **Contact Hours:** 3 per week

■ **MIN415 MARKETING FOR ARTS ADMINISTRATORS**

This unit is designed to provide students of arts administration with an understanding of the basic marketing concepts and their application within the context of culture and the arts. It examines the principles of cultural enterprise; promotion; sponsorship; advertising; communication; market research and the development of marketing plans; and campaigns for arts and cultural organisations.

Courses: GS70, BS30

Prerequisite: MIN400 or MIN430 as a corequisite

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: Any postgraduate unit in Marketing

■ **MIN419 SEMINARS IN CONSUMER BEHAVIOUR**

Introduction to the area of consumer behaviour and a forum for discussion of theory and research in the field. Students will execute research projects and discuss the interdisciplinary nature of consumer behaviour. Issues from past classes include: children as consumers, consumerism, ethical decision making, gender representation in advertising, emotions research, time, hedonism and materialism, and cross-cultural research.

Courses: BS85, BS61

Prerequisites: An undergraduate specialisation in marketing or 48 credit points from GS80, GS81 or GS70

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: MKN108

■ **MIN421 SEMINARS IN INTERNATIONAL MARKETING**

This unit covers international marketing theory and plan-

ning. Theoretical issues will include segmentation of international markets, life cycle and contingency approaches to international market entry choice, and market development and extension. Planning issues could cover the strategic marketing processes involved, including international market research involved, and their application to regions and countries in the Asia/Pacific region or Europe.

Courses: BS85, BS61

Prerequisites: An undergraduate specialisation in marketing or 48 credit points from GS80, GS81 or GS70

Credit Points: 12 **Contact Hours:** 3 per week

■ **MIN422 SEMINARS IN MARKETING MANAGEMENT**

An advanced study of marketing, marketing systems and marketing management decision processes within the contemporary structure of social, cultural, political, economic, business and organisational environments. The interpretation of accounting reports to identify and develop financial information necessary to plan and control the marketing function. Marketing management issues associated with profit and non-profit organisations and the relevance of marketing theory to these institutions.

Courses: BS85, BS61

Prerequisites: An undergraduate specialisation in marketing or 48 credit points from GS80, GS81 or GS70

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: MKN107

■ **MIN423 SEMINARS IN PRODUCT INNOVATION AND DEVELOPMENT**

The unit deals with the dynamics of product innovation and product development within the mix of core marketing activities of organisations. A 'product' is defined broadly to include both tangible and intangible offerings and the various categories of consumer and industrial services and events. Issues covered include: product market analysis, design, innovation, evaluation and testing of product ideas, branding and packaging, market testing and investment analysis. Learning methodologies are mostly experiential and include hands-on computer use, visits to organisations and practical exercises.

Courses: BS85, BS61

Prerequisites: An undergraduate specialisation in marketing or 48 credit points from GS80, GS81 or GS70

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: MKN109

■ **MIN424 SEMINARS IN SERVICES MARKETING**

This unit emphasises the services which comprise three-quarters of developed economies. In services, relationships with customers have a large role, and so this unit concentrates on establishing or identifying valuable customers and maintaining relationships with them. Issues include: segmenting services markets, developing and measuring relationships, long run networks versus one-off transactions, service quality management in various industries such as retailing and tourism, innovations in services distribution and brand equity.

Courses: BS85, BS61

Prerequisites: MIN422 or MKN107

Credit Points: 12 **Contact Hours:** 3 per week

■ **MIN425 SEMINARS IN STRATEGIC MARKETING**

This unit provides a foundation understanding of strategic marketing and is an integrative, capstone unit for the first, foundation units of the program. It deals with how an organisation can adapt to a changing external environment through market-driven strategic planning. Is-

sues covered include: environmental analysis, strategic positioning, and the development of strategic marketing plans. The unit usually includes groups of students creating strategic marketing plans for real world organisations.

Courses: BS85, BS61 **Prerequisites:** 48 credit points
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: MKN110

■ MIN426 SPECIAL TOPIC IN INTERNATIONAL BUSINESS

This is intended to be an 'open-ended' unit where the opportunity will be available for staff and visiting scholars to offer a specialised program of study.

Courses: BS63, BS92, BS93

Prerequisites: A first degree

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: EPN110 unless the permission of the Course Coordinator is gained

■ MIN428 STRATEGIC ISSUES AND TOURISM

Tourism represents a complex exchange of numerous differentiated and diverse goods and services involving many industries, activities, operators and government agencies. It is the nature of the interactions between the tourist and the various providers which determines quality of the tourist experience and the extent to which tourist expectations are realised. The strategic management of tourism thus involves considerations of variability, interdependence, complexity and transaction interactions normally not encountered in non-tourist settings. The aim of this unit is to help the student develop an understanding of the need for, and ability to generate, appropriate strategic perspectives and plans.

Courses: BS63, BS92, BS93 **Prerequisite:** MIN433
Credit Points: 12 **Contact Hours:** 3 per week

■ MIN429 STRATEGIC MARKETING MANAGEMENT

This unit is the capstone unit of the Masters program. It aims to ensure students can manage the complete marketing function at a senior level within a corporation, and includes assessing the marketing function's performance with appropriate tools to diagnose, assess, track and evaluate performance and to modify processes to improve the function. Links between the marketing function and other functions of a business such as accounting, operations and human resources will be drawn, so that the student would be in a position to move into top management if the opportunity arose. Learning methodologies may include a complex computer simulation requiring a series of competitive strategic marketing decisions with feedback on them.

Courses: BS85, BS61

Prerequisites: 96 credit points, including MIN422
Credit Points: 12 **Contact Hours:** 3 per week

■ MIN430 THE ARTS INDUSTRY

This unit provides a general framework for the analysis of the arts and culture as an industry. It examines the operational procedures of arts organisations, including the relationships of the arts with: the legal system and the law; the media; industrial awards; business; the public; the human resources of the organisation; and multimedia developments. It concludes with an examination of cultural leadership in the community.

Courses: GS70, BS30 **Prerequisites:** MIN400
Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: MKP109

■ MIN431 TOURISM DEVELOPMENT

The aim of this unit is to examine tourism projects and their developmental impacts. It will focus on project analysis, formulation and implementation in a variety of project contexts, both domestic and international. The

notion of a tourism cycle is introduced, with an examination of the opportunities and problems associated for specific projects with each stage in the cycle.

Courses: BS63, BS92, BS93 **Prerequisite:** MIN433
Credit Points: 12 **Contact Hours:** 3 per week

■ MIN432 TOURISM MARKETING

This unit explores services marketing within tourism contexts. It provides students with a detailed understanding of the issues affecting the marketing of tourism destinations, elements of the destination mix and various tourist attractions. Services marketing techniques are explored within key elements of the destination mix at the regional, state, national and international levels.

Courses: BS63, BS92, BS93 **Prerequisite:** MIN433
Credit Points: 12 **Contact Hours:** 3 per week

■ MIN433 TOURISM: NATIONAL AND INTERNATIONAL

The aim of this unit is to provide a detailed examination of tourism trends on a national, international and comparative basis. The primary focus will be upon the Australian, Asian and European markets, with a detailed examination of types of tourism markets, their development and impact. Current major issues will be assessed and related to the supply of tourism services and products.

Courses: BS63, BS92, BS93

Credit Points: 12 **Contact Hours:** 3 per week

■ MIN434 SPECIAL TOPIC – MARKETING

This is intended to be an 'open-ended' unit where the opportunity will be available for staff and visiting scholars to offer a specialised program of study.

Courses: BS63, BS92, BS93

Prerequisites: A first degree with a specialisation in marketing

Credit Points: 12 **Contact Hours:** 3 per week

■ MJB101 JOURNALISM INFORMATION SYSTEMS

This unit acquaints students with the uses journalists make of computers in their work: for wordprocessing, personal information management, time management, and gathering information for stories by searching online and CD-ROM databases, by analysing public records with spreadsheets and by using email to 'interview' sources found on Internet Bulletin Boards and in Newsgroups, Usergroups, and Listservers.

Course: MJ20

Prerequisite: Journalism majors and minors only

Corequisite: MJB120

Credit Points: 12 **Contact Hours:** 3 per week

■ MJB111 MEDIA WRITING

Introduction to writing for the electronic media. The major requirements for writing practice within a variety of electronic media industry contexts, and the implications for writers of those diverse contexts and audiences. Film, television, radio and multimedia, including drama, documentary, comedy, educational and corporate.

Course: MJ20

Credit Points: 12 **Contact Hours:** 3 hours per week

■ MJB115 SUPERVISED PROJECT FILM AND TELEVISION

Students undertake one or more specialist roles in the production of an approved major film or television project.

Course: BS50, MJ20. Available to Film and Television Production majors only.

Prerequisites: MJB113, MJB114, MJB134

Credit Points: 12 **Contact Hours:** 6 per week

Incompatible with: MJB352

■ **MJB118 FUNDAMENTALS OF PHOTOGRAPHY**

Historical development of the photographic arts, role of the photographer in society, the principles of visual perception, composition and design, photography as both art and craft; display photography, news photography, photo layout and design; the still camera, developing, printing and enlarging; creative use of camera and darkroom; colour and electronic imaging. Fortnightly photographic assignments and portfolio.

Courses: BS50, IF52, IF54, IT20, MJ20, MJ23

Credit Points: 12 Contact Hours: 4 per week

■ **MJB120 NEWSWRITING**

Students learn to think like journalists, to evaluate events for their potential news value, to interview and perform other reporting tasks and to write news stories; the evolution and theories of reporting.

Course: MJ20

Prerequisite: MJB101

Credit Points: 12 Contact Hours: 3 per week

■ **MJB121 JOURNALISTIC INQUIRY**

The philosophical rationale behind the free flow of information and its use studied from practical and theoretical perspectives. The journalist's role in society defined and explored through the use of advanced research techniques involving Freedom of Information, property and company searches and the use of newspaper databases.

Courses: BS50, MJ20

Prerequisites: MJB120, MJB101

Credit Points: 12 Contact Hours: 3 per week

■ **MJB127 FILM NARRATIVE**

An historical analysis of narrative in the cinema through a study of the development of innovative cinematic storytelling techniques and the impact of improved technology. The inter-relationship between improved technical means – cameras and lenses, editing techniques, sound equipment and lighting – and how these have increased the creative scope of film makers. Content will not be simply restricted to film but will also discuss elements of the graphic arts, the novel, dramatic forms and social phenomena in various national groupings.

Courses: BS50, MJ20, MJ23

Credit Points: 12 Contact Hours: 3 per week

■ **MJB130 MEDIA TEXT ANALYSIS**

The unit acquaints students with a range of approaches, both traditional and contemporary, to the analysis of media texts. It equips students with practical methods of understanding the creation and structuring of social meaning through media. The strategies applied in the analysis of texts will be drawn from the following areas: Utilitarianism, New Criticism and the traditional legacy; Semiotics and Structuralism/Post-Structuralism; Marxism and Contextual/Historical Approaches, Feminism, Psychoanalysis, and Multi-Culturalism. The media texts chosen will include newspaper articles, cartoons, photographs, advertisements, films and television programs.

Courses: ED50, MJ20

Credit Points: 12 Contact Hours: 3 per week

■ **MJB140 MEDIA AND SOCIETY**

A range of theoretical positions on mass media study; the political economy of the media; the role and meaning of advertising; the manufacture of news; theories of journalism; audience theory; media representation of different societal groups – gender, race, ethnicity, class, age; public access media; media ownership and control; the treatment of particular social issues in the media; textual and discourse analysis; new technologies; ethics.

Courses: AA11, AA21, AA51, AA71, ED50, HU20, MJ20, SS07

Credit Points: 12 Contact Hours: 3 per week

■ **MJB141 FILM AND TELEVISION LANGUAGE**

The unit surveys the processes by which meaning is constructed in film and television programs. This is first studied in relation to the question of form, and attention is given to how films, both narrative and non-narrative, and television programs, may be structured. The production of meaning is explored through a detailed examination of mise-en-scene (movement and placement of actors, setting, lighting, and costume), cinematography (including camera-angle, camera-distance, camera-movement and special effects), editing and sound.

Courses: ED50, MJ20

Corequisite: MJB130 or equivalent

Credit Points: 12 Contact Hours: 4 per week

■ **MJB147 FILM AND TELEVISION GENRES**

This unit explores the concept of genre in films and television programs. It investigates the conventions and iconography of particular film and television genres. It also examines the relationships between film genres and television genres, between genre and history/ideology, between genre and the film and television industries, and between the generic texts produced by these industries.

Courses: ED50, MJ20

Prerequisite: MJB130 or equivalent

Credit Points: 12 Contact Hours: 3 per week

■ **MJB149 FILM HISTORY**

The unit explores how film has developed throughout this century and the relationship of this development to historical and technological change. It also examines what constitutes film history and the perspectives from which that history may be written. The following topics are treated: the development of the Hollywood classical continuity style; notions of 'realism' and their relation to French poetic realism of the '30s, neo-realism in post war Italy, and the 'kitchen-sink' films of Britain in the '60s; modernism; expressionism and film noir; the impact of widescreen formats; the various 'new waves' of the '50s and '60s; and the impact of new technologies and information systems on film.

Course: ED50

Credit Points: 12 Contact Hours: 3 per week

■ **MJB155 MEDIA PRODUCTION**

Analysis of audio-visual media in terms of markets served; criteria used in the selection of the appropriate mediated form; the technology and development of film and television; the principles of production and production management. Introduction to script layout. Principles of directing, camera, lighting, sound and editing, introduction to animation, graphics and special effects; introduction to multi-media technology, principles and future directions.

Courses: BS50, ED50, MJ20, MJ23

Credit Points: 12 Contact Hours: 5 per week

Incompatible with: MJB126

■ **MJB165 CREATIVE SOUND**

Creation and manipulation of sound in the communication context; fundamentals of sound and sound recording; dynamic range, distortion, bias, equalisation, multi-tracking and mixing; microphone techniques, digital recording and MIDI.

Courses: MJ20, MJ23

Prerequisite: Available to non-Film and Television Production majors in Semester 2 only

Credit Points: 12 Contact Hours: 4 per week

Incompatible with: MJB108

■ **MJB166 CREATIVE IMAGE**

Foundation principles in the manipulation of light and image, illusion and visual impression. Introduction to the relationship between light, vision and image. Con-

cepts covered include energy theory, physical optics, the physiology and psychology of vision, and the recording and processing of photochemical, electronic, and digital images. Theoretical concepts are applied through the use of broadcast industry image production software on networked desktop computing systems.

Course: MJ20

Prerequisite: Available to non-Film and Television Production majors in Semester 1 only.

Credit Points: 12 **Contact Hours:** 4 per week
Incompatible with: MJB108

■ **MJB180 SPEECH COMMUNICATION FOR JOURNALISTS**

This unit draws on the theories of rhetoric, semiotics, group dynamics and interpersonal communication as a base for developing professionals who are articulate presenters, probing but empathic interviewers and interviewees, and good team players. Theory and practice are inter-related to develop understanding and self-reflexivity within students concerning their own communication skills. Practice in simulated work situations will allow growth and learning in the laboratory of the classroom.

Course: MJ20

Prerequisite: MJB120

Credit Points: 12 **Contact Hours:** 3 per week

■ **MJB200 VIDEO DRAMA PRODUCTION**

Principles of single camera film and video production. Realising the intention of the programme, conversion of script to mediated form, budgeting and production management. Principles, aesthetics and practice of: directing, editing, camera, sound, lighting and design crafts. Casting and working with actors, achieving performance, coverage and a quality product.

Course: BS50, MJ20

Prerequisite: MJB155 or MJB126. Available to non-Film and Television Production majors in Semester 1 only

Credit Points: 12 **Contact Hours:** 6 per week

■ **MJB204 MEDIA INDUSTRIES AND ISSUES**

An introduction to the study of mass media and cultural production, with particular emphasis on Australian media industries, including television, radio, the press, advertising, film, video, publishing and music. The unit considers these industries from social, historical and industrial perspectives, examines the development and implementation of regulation and policy, and explores a range of contemporary and future issues.

Course: MJ20

Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: MJB104

■ **MJB209 AUSTRALIAN TELEVISION**

This unit deals with the role of television in the construction of Australia's cultural identity. Particular attention is paid to the part played by a number of historical mini series and documentary films in this process. The unit examines how issues such as war, religion, race, ethnicity, foreign relations and sport are dealt with in a number of texts.

Courses: ED50, MJ20

Prerequisite: 96 credit points of undergraduate study
Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: MJB109

■ **MJB213 FILM DRAMA PRODUCTION**

This unit provides students with 'hands on' experience in a range of specialist activities required to produce a film drama. Through the application of advanced production techniques, it allows students to realise their creative potential through experimentation and to develop communication skills and methods of working. Students are required to work in professional crew structures to produce a significant short film.

Course: BS50, MJ20;

Prerequisites: (MJB126 and MJB129) or (MJB200 and MJB229)

Credit Points: 12

Contact Hours: 6 per week

Incompatible with: MJB113 ; Not available to cross-institutional students.

■ **MJB224 FEATURE WRITING**

Students use the principles of reporting to produce newspaper and magazine articles that profile personalities, or that treat processes, events and places to exploit their human-interest news value.

Courses: BS50, MJ20, MJ23

Prerequisite: MJB121 or MJP100

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: MJB124

■ **MJB229 FILM AND TELEVISION SCRIPTWRITING**

Writing through analysis of features, documentaries and drama; in-depth approach to writing through analysis of scripts, audiences and the industry; dialogue and character development; use of film in television and public relations; analysis of scripts and script requirements in contemporary markets.

Courses: BS50, MJ20, MJ23

Prerequisite: MJB111 or MJB127

Credit Points: 12

Contact Hours: 3 per week.

Available to non-Film and Television Production majors in Semester 2 only

Incompatible with: MJB129

■ **MJB231 TELEVISION STUDIO PRODUCTION**

The operational and artistic requirements for simple television studio production including post production for news, current affairs, magazine formats and simple drama. The unit will involve students as a working crew in live studio production. Students will gain direct experience of the roles of producer, director, designer, technical director, floor manager, vision mixer, production assistant and operators of camera, audio, lighting, CCU's, tapes, character generator and teleprompter. The nature of television studio production necessitates an understanding of all crew roles and the interdependence of each to the creative output. Each student will be assessed on all aspects of studio/control room roles and functions, and will be required to present a paper and a run-down script.

Course: BS50, MJ20

Prerequisites: MJB111 and MJB200

Credit Points: 12

Contact Hours: 6 per week

Incompatible with: MJB131; Not available to cross-institutional students

■ **MJB232 RADIO AND TELEVISION JOURNALISM 1**

The practical and theoretical aspects of radio and television media are studied through the examination of interviewing techniques. Students learn radio style and usage and the evaluation of television news bulletins through seminars and workshops. Strong emphasis is placed on current affairs knowledge.

Courses: BS50, MJ20

Prerequisites: MJB100 and MJB121 or MJP100

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: MJB132

■ **MJB233 TELEVISION CULTURES**

The aim of the course is to provide students with some ways to think about and to begin to account for the processes by which people make sense of and take pleasure from their encounters with television. It allows students to understand better the nature of television as a form of communication. The subject draws on the insights pro-

vided by a range of media studies approaches: semiotics and structuralism, British cultural studies, narrative theory, reception theory, ideological analysis, feminist criticism, and psychoanalysis. It examines television production as 'texts', and analyses the factors determining their construction and their possible meanings for audiences.

Course: MJ20 **Prerequisite:** MJB130 or equivalent
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: MJB133

■ **MJB239 JOURNALISM ETHICS AND ISSUES**
The Australian Journalists' Association code of ethics is examined against the background of Australia's multicultural and pluralistic democracy; the evolution of the code, its philosophical underpinnings, how it compares to other national and international media codes and the general value of codes of ethics. Students will be placed in ethical dilemmas and asked to make decisions and justify their choices; the value of deathknocks, privacy, defining off-the-record, handling leads and women in the media.

Courses: BS50, MJ20, MJ23 **Prerequisite:** MJB121
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: MJB139

■ **MJB250 LANGUAGE AND LITERATURE**

This unit develops advanced critical and analytical skills in dealing with a variety of textual forms. Students acquire an understanding of various forms of literary or creative language forms. Students are introduced to literary theory as well as key language theory.

Courses: BS50, MJ20
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: COB144

■ **MJB260 COMMUNITY AND EDUCATIONAL VIDEO**

New approaches to educational and community-focused video production using still and video cameras, editing equipment and computers; maximising outcomes using low-cost new wave technologies to produce magazine programs, oral histories, corporate promotional, educational and training videos and CD-ROMs.

Course: ED50
Prerequisite: MJB100 or MJB126 or MJB155
Credit Points: 12 **Contact Hours:** 3 per week

■ **MJB303 NEWS PRODUCTION**

Media industries and media firms; social responsibilities; managing deadlines; planning and decision-making in the newsroom; leadership and motivation; news practice; radio, television, newspapers; case studies.

Courses: BS50, MJ20
Prerequisites: MJB322, MJB338 (none for MBA students)
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: MJB103

■ **MJB305 AMERICAN FILM AND SOCIETY**

This unit is a contextual study of American films across 50 years. It allows students to explore how films form part of and contribute to the ideologies current during the period of their production. The subject examines the refraction of the Great Depression and Roosevelt's New Deal in 1930s genre films; the post-war reconstruction and the reaffirmation of the family in 1940s films; the anti-communist hysteria and conservatism of the 1950s; the relation of 1960s films to various radical movements of the period; and the treatment of a range of social issues in 1970s and 1980s and 1990s films.

Courses: ED50, MJ20
Prerequisite: 96 credit points of undergraduate study
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: MJB105

■ **MJB307 FEMINIST MEDIA STUDIES**

This subject is designed to examine critically the issue of gender, sexuality and the media within cultures. A range of media texts will be investigated. Cultural discourses such as masculinity, femininity, romance, the body, sexuality and violence will be discussed. Issues such as cross-culturalism, new technologies, spatial politics, celebrities and political correctness will also be addressed from a feminist media studies perspective.

Courses: ED50, MJ20
Prerequisite: 96 credit points of undergraduate study
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: MJB107

■ **MJB310 ASIAN AND LATIN AMERICAN CINEMA**

This subject provides an introduction to the study of the national cinemas of China and Cuba. China here will be taken to include reference to the cinemas of Hong Kong and Taiwan. The films will be placed within their political, cultural and historical contexts. Thus Chinese cinema will be studied from the perspective of the new cinema which emerged from the film makers Chen Kaige, Wu Tianming, Zhang Yimou and Tian Zhuangzhuang, and Cuban cinema will be dealt with in the context of the Cuban revolution.

Courses: ED50, MJ20
Prerequisite: 96 credit points of undergraduate study
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: MJB110

■ **MJB314 FILM AND TELEVISION BUSINESS**

The role of the producer and executive producer in the packaging and financing of film and television production including corporate, training and documentary, grant films, features telemovies and mini-series; matching television network programming needs and achieving balance in above-the-line, below-the-line and marketing costs. Sources of finance: Film Queensland, networks, corporate sponsors, corporate clients, investors, pre-sales, government grants, Film Finance Corporation; methods of obtaining finance, insurance, completion guarantees, legal and accounting requirements; social and ethical issues.

Courses: MJ20, MJ23
Prerequisites: MJB213 or two years in a degree program
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: MJB114

■ **MJB322 SUB-EDITING AND LAYOUT**

Introduction to the basic copy editing and design principles for newspapers. These skills are incorporated with the latest desktop publishing technology with specific reference to newspapers. Students use wire stories from Australian Associated Press, Reuters, Associated Press and Agence France Presse in news and feature page design exercises.

Courses: BS50, MJ20, MJ23
Prerequisite: MJB224 or MJP100
Credit Points: 12 **Contact Hours:** 3 per week
Incompatible with: MJB122

■ **MJB334 VIDEO DOCUMENTARY PRODUCTION**

An orientation to the history and development of documentary and associated theoretical perspectives. Workshop sessions build on previously acquired skills in the areas of programme concept, script development, approaches to production, camera, sound and editing technique. Exercises include shooting and editing several short magazine style pieces to a tight deadline and the production of a significant short documentary or corporate video.

Courses: BS50, MJ20

Prerequisites: (MJB155 and MJB111) or (MJB126 and MJP100 or MJB129)

Credit Points: 12

Contact Hours: 6 per week

Incompatible with: MJB134; Not available to cross-institutional students

■ **MJB335 PROFESSIONAL MEDIA PRACTICE**

An opportunity to observe, and gain insight into, the applications of theory to practice. The student is placed with an approved employer. The lecturer in charge of the unit obtains reports from the student at regular intervals. The student is required to contract the completion of a progressive assessment program. The student's result is determined on the basis of reports, continuous assessment and the employer's report. Film and Television Production students may seek approval from the Unit Coordinator for specific production activity to be counted as partial credit towards this unit.

Course: MJ20

Prerequisites: One of: MJB122, MJB138, MJB322 or MJB338 for BA (JNL) majors and one of: MJB113, MJB134, MJB213 or MJB334 for BA (FTV) majors

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: MJB135; Not available to cross-institutional students

■ **MJB336 NEW MEDIA TECHNOLOGIES**

The implications of new media technologies, and associated industrial and cultural changes, are an increasingly central issue for those involved both in media studies and media production. This course will examine the relationship between new technologies and media production in their social and cultural context, evaluating the impact of developments such as digitisation and convergence on work, leisure, film, television, print media and other areas of cultural production. It will also address emerging policy issues such as privacy, information access, cultural diversity and the relationship between personal freedom and social regulation on media such as the Internet. Through such an examination, this course will consider the insights that media theory can provide to an understanding of the new technologies and their social and cultural impact, and consider how changes in dominant media forms impact upon the study of the media and contemporary culture.

Courses: ED50, MJ20

Prerequisite: 144 credit points of undergraduate study

Credit Points: 12

Contact Hours: 3 per week

■ **MJB337 PUBLIC AFFAIRS REPORTING**

This is an advanced reporting unit stressing the watchdog role of the press and utilising investigative techniques, including computer-assisted reporting, Internet and other online searching. Students undertake in-depth practical assignments for possible publication.

Courses: BS50, MJ20

Prerequisite: MJB124 or MJB224

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: MJB137

■ **MJB338 RADIO AND TELEVISION JOURNALISM II**

Philosophy and formulation of radio and television current affairs, anchor techniques, radio and television news production using computers.

Courses: BS50, MJ20

Prerequisite: MJB132 or MJB232

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: MJB138

■ **MJB343 AUSTRALIAN FILM**

A study of New Wave Australian films within their cultural and institutional contexts; issues facing the film

industry today; the filmic construction and circulation of cultural discourses such as national identity, nationalism, gender, ethnicity and class; the Australian landscape in film; experimental and avant garde films; indigenous films; new technological and global challenges.

Courses: ED50, MJ20

Prerequisite: 96 credit points of undergraduate study

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: MJB143

■ **MJB344 EUROPEAN CINEMA**

The post World War II cinema of two European countries related to their social and historical context. The content coverage of Italian and French cinema is shown as an example. The Italian section will examine neo-realism, the influence of Marxism on filmmakers such as Visconti, Pasolini and Bertolucci, and the films of Fellini, Antonioni and the Taviani brothers. The French section will explore the style and context of the New Wave, the work of independent filmmakers, and the work of contemporary directors such as Varda, Pialat, Blier and Deville.

Courses: ED50, MJ20

Prerequisite: 96 credit points of undergraduate study

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: MJB144

■ **MJB346 AUSTRALIAN DOCUMENTARY: FILM AND TELEVISION**

This unit deals with the growth and development of the documentary film in Australia. The unit examines the role of government and non-governmental institutions in the sponsoring of Australian documentaries. The unit also studies the work of leading film makers such as John Pilger, Tom Zubricki, David Bradbury and others.

Courses: ED50, MJ20

Prerequisite: 96 credit points of undergraduate study

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: MJB146

■ **MJB350 CREATIVE WRITING AND PUBLISHING**

This subject is an advanced elective for students working towards a vocation involving professional writing, especially writing involving creativity. The subject has a particular focus on narrative writing, but students may work in other genres as well. It offers advanced techniques in professional writing and editing, including publishing and marketing, and is suitable for practitioners in literature, journalism, film & television, media studies, communication and education.

Credit Points: 12

Contact Hours: 3 per week

Incompatible with: COB147

■ **MJB352 ADVANCED FILM AND TELEVISION STUDIES**

Advanced Film and Television Studies is a capstone elective unit designed to enable students to optimise their practical skills. It is available only to advanced Film and Television Production majors. It is a 24 credit point contract learning unit across two semesters, and involves individual study and a major production. Students who wish to take this practical skilling path must, during Semester 4, choose a specialisation for their Advanced Film and Television Studies and submit a work proposal including a role on a major production. A written invitation to undertake Advanced Film and Television Studies must be received prior to enrolling in the unit.

Course: MJ20

Prerequisite: MJB213

Corequisite: MJB314

Credit Points: 24

Contact Hours: 6 per week for two semesters

Incompatible with: MJB115; Available to Film and Television Production majors only

■ MJN100 ADVANCED MEDIA THEORY

As a preliminary to undertaking research in media studies, students study contemporary media theory in detail, extending their overview of communication and media theory. Topics include: contemporary political economy of the media; feminist cultural theory; textual and audience studies in media and cultural studies; post-modernism; and cross-cultural communication. These studies will find preliminary application in some relevant research areas.

Prerequisite: MJP101 or equivalent

Credit Points: 12 **Contact Hours:** 3 per week

■ MJN101 ADVANCED MEDIA ANALYSIS

The theoretical strategies discussed in MJN100 are here given practical application in regard to textual practice. The more important theories of textual analysis – semiotics, structuralism, psychoanalysis, Marxism and feminism – are applied to a range of texts drawn from print media, including newspapers and magazines; film; television; and popular fiction.

Prerequisite: MJN100 **Corequisite:** MJN100

Credit Points: 12 **Contact Hours:** 3 per week

■ MJN103 AUSTRALIAN MEDIA CONTEXTS

Analyses specific aspects of the interaction between mass media and the Australian cultural context; approaches this relationship through cultural studies methodologies: discourse analysis, semiotics, structuralism and theories of cultural production; explores at an advanced level the histories and contemporary configurations of Australian media industries; telecommunications, television, film, radio, advertising and the print media.

Prerequisite: MJN100 **Corequisite:** MJN100

Credit Points: 12 **Contact Hours:** 3 per week

■ MJN105 COMPARATIVE JOURNALISM

Theoretical basis of different media systems throughout the world; debate over the dominance of world media by Western, particularly Anglo-American, countries and perceived need for a new world information and communication order; practical problems of foreign correspondents in different societies.

Credit Points: 12 **Contact Hours:** 3 per week

■ MJN106 JOURNALISTIC FREEDOM AND RESPONSIBILITY

Provides opportunities for in-depth studies of the historical, philosophical and theoretical foundations of journalism, the law of journalism and journalistic responsibilities. Students learn historiography and how to research the law. They present to the class papers that might later become part of their theses on an historical, legal or ethical issue.

Credit Points: 12 **Contact Hours:** 3 per week

■ MJP100 JOURNALISTIC WRITING

Learning to think like journalists; to evaluate events for their potential news value; to interview and perform other reporting tasks and to write news stories. News values; reporting techniques; and journalistic writing; style and convention.

Course: MJ23

Credit Points: 12 **Contact Hours:** 3 per week

■ MJP101 MEDIA THEORY (FORMERLY COMMUNICATION THEORY 2)

A systematic introduction to the critical and qualitative traditions of media theory and research, with special emphasis on critical media theory. Applications to mass media, including television, film, radio, advertising, print, and new media. Broad theoretical traditions in media theory; history of media theory; media institutions; media organisation and culture; media text analysis; media audiences; media futures.

Courses: AT22, MJ21, MJ23

Credit Points: 12 **Contact Hours:** 3 per week

■ MJP102 MEDIA POLICY ENVIRONMENT (FORMERLY COMMUNICATION POLICY ENVIRONMENT)

The public policy environment associated with media practice and processes; current issues; the participating and critical views. A study of the public process in selected countries with special emphasis on Australian media policy. Social, legal, political and technical environments; current and major issues, and the differing approaches to media policy studies.

Courses: AT22, MJ21, MJ23

Credit Points: 12 **Contact Hours:** 3 per week

■ MJP103 CREATIVE WRITING THEORY

This unit examines the major theories underlying and informing the practice of writing creative texts, including narrative prose and film script. Such theory enhances critical awareness and knowledge of writing strategies relevant to the production of a text.

Courses: AT22, MJ23

Credit Points: 12 **Contact Hours:** 3 per week

■ MJP105 THEORIES OF JOURNALISM

The body of 'classical' literature pertaining to the theories of journalism and mass communication; identification of individual research interests; the empirical traditions of mass communication theory.

Courses: AT22, MJ21, MJ23

Credit Points: 12 **Contact Hours:** 3 per week

■ MJP106 DISSERTATION

The culmination of the Honours degree in Film and Television Production, Journalism or Media Studies in that students apply the theory and research material covered in earlier units to explore in some depth an applied or theoretical topic in their chosen discipline area. The dissertation is normally based on information from secondary sources and consists of a written report of approximately 12 000 – 15 000 words. It is also possible to undertake a creative work such as a film or multimedia script or production.

Course: MJ21

Prerequisites: Normally MJP101, MJP102, MJP105

Credit Points: 48 **Contact Hours:** 1 per week

■ MJP107 DISSERTATION (1-3)

The culmination of the part-time Honours degree in Film and Television Production, Journalism or Media Studies in that students apply the theory and research material covered in earlier units to explore in some depth an applied or theoretical topic in their chosen discipline area. The dissertation is normally based on information from secondary sources and consists of a written report of approximately 12 000 – 15 000 words. It is also possible to undertake a creative work such as a film or multimedia script or production. Students enrol in two sequential 12 credit point units (MJP107 /1, MJP107 /2) followed by one 24 credit point unit (MJP107 /3) until they have completed 48 credit points. Normally, MJP107 /1 will involve students beginning to apply the theory and research material covered in earlier units, to a chosen dissertation topic, in consultation with an approved supervisor. MJP107 /2 will involve students consolidating the preparatory work begun in MJP107 /1 by preparing drafts of two chapters under structured supervision. MJP107 /3 completes the sequence of dissertation units. Students complete the drafting of their dissertation and revise to a final copy for submission under supervision. Length will be 12 000 – 15 000 words or an equivalent in other media forms.

Courses: MJ21

Prerequisites: Normally two of MJP101, MJP102, MJP105

Credit Points: 48 **Contact Hours:** 1 per week

■ **NSB113 VALUES, CULTURE AND NURSING**

This unit will enable students to gain an understanding of the complex interrelationships between philosophical principles, culture, nursing and health-related behaviours. It will draw upon contemporary nursing practice to facilitate the provision of culturally sensitive and relevant care in a culturally diverse world.

Course: NS40, NS48

Credit Points: 12 **Contact Hours:** 3 per week

■ **NSB116 NURSING 1**

An introduction to the key concepts underpinning nursing as a profession. Topics include: historical, social and political factors which have shaped the development of nursing practice; contemporary roles of the nurse; theoretical perspectives of nursing; nursing and health promotion.

Course: NS40

Credit Points: 12 **Contact Hours:** 3 per week

■ **NSB121 NURSING 2**

Further development of the key concepts underpinning nursing as a profession. Topics include: the concept of client within the nurse-client relationship; theoretical perspectives of the helping relationship as applied to nursing; judgment and decision making processes within the context of nursing practice; collaboration within the health care team and governance in nursing.

Course: NS40

Prerequisite: NSB116

Credit Points: 12 **Contact Hours:** 3 per week

■ **NSB122 CLINICAL PRACTICE 1**

The development and application of skills which are fundamental to nursing practice: communication skills, health assessment skills, care planning skills, skills which support client comfort and safety. Students will engage in a variety of on-campus activities which include laboratory practice sessions. In addition, an off-campus clinical practicum will be undertaken in a health care setting.

Course: NS40

Corequisite: NSB121

Credit Points: 12

■ **NSB212 CLINICAL PRACTICE 2**

Further development and application of the theoretical and practical knowledge and skills necessary in the provision of safe, effective nursing care in a variety of settings. Students will practise the application of problem-solving and technical skills in both University (on-campus) and clinical (off-campus) settings. The off-campus clinical practicum will be undertaken in a variety of health care settings which include hospitals, palliative care facilities and psychiatric-mental health facilities.

Course: NS40

Prerequisite: NSB122

Corequisite: NSB211 **Credit Points:** 12

■ **NSB213 NURSING 3**

This unit provides theoretical foundations for clinical decision making and problem solving related to the promotion, maintenance and/or restoration of health for clients experiencing alterations in activity/exercise, nutritional/metabolic and sleep patterns.

Course: NS40

Prerequisites: NSB111, NSB121

Corequisite: NSB212

Credit Points: 12 **Contact Hours:** 3 per week

■ **NSB221 NURSING 4**

This unit provides theoretical foundations for clinical decision making and problem solving related to the promotion, maintenance and/or restoration of health for clients experiencing alterations in cognitive/perceptual, coping value/belief patterns.

Course: NS40

Prerequisites: NSB111, NSB121

Corequisite: NSB222

Contact Hours: 3 per week

■ **NSB222 CLINICAL PRACTICE 3**

Further development and application of the knowledge and skills necessary in the provision of safe, effective nursing care in a variety of settings. Students will practise the application of problem solving and technical skills in both University (on-campus) and clinical (off-campus) settings. The off-campus clinical practicum will be undertaken in a variety of health care settings which include hospitals, palliative care facilities and psychiatric-mental health facilities.

Course: NS40

Prerequisites: NSB122, NSB212

Corequisite: NSB222

Credit Points: 12

■ **NSB223 MENTAL HEALTH NURSING**

This unit will enable students to gain an understanding of the important issues and principles associated with the promotion of mental health and prevention of mental illness in the community. Topics to be addressed include various perspectives of mental health and illness; factors underlying the development of mental illness; intervention strategies in the promotion/maintenance of optimal mental health; mental health policies.

Course: NS40, NS48

Prerequisite: SSB101

Credit Points: 12

Contact Hours: 3 per week

■ **NSB224 RESEARCH APPROACHES IN NURSING**

An understanding of the various approaches to research is central to contemporary nursing practice and the scholarly advancement of nursing knowledge. Topics addressed in this unit include the significance of research in nursing; methodologies used to research nursing practice; and appraisal of research reports.

Course: NS40

Credit Points: 12

Contact Hours: 3 per week

■ **NSB301 NURSING & BIOPHYSICAL HEALTH 1**

Effects of selected pathophysiologic processes on meeting human needs. Topics include: assessment and nursing diagnosis of gas exchange, circulation, hydration, physical comfort and safety problems; and independent and collaborative strategies designed to promote, maintain and/or restore health.

Course: NS40

Prerequisites: NSB151, NSB152

Credit Points: 8

Contact Hours: 3 per week

■ **NSB302 NURSING & MENTAL HEALTH 1**

Theories, concepts and models which provide the basis for understanding individuals and their mental health needs; provides a framework for nursing care which acknowledges the importance of promoting, maintaining and restoring mental health. Addresses contemporary concepts of mental health and mental illness; biological and socio-cultural factors which can influence mental health and mental health problems; mental health assessment; and strategies for mental health promotion.

Course: NS40

Prerequisites: NSB151, NSB152

Credit Points: 8

Contact Hours: 3 per week

■ **NSB308 NURSING & MENTAL DISORDER**

Mental disorder is common and extensive across Australia, and affects all age and social groupings. This unit provides a framework for addressing the important issues and principles associated with the understanding of the interrelatedness of individual, family, community and environment in the development, maintenance and resolution of mental disorders. Topics include the psychodynamics of normal and abnormal behaviour, diagnosis and presentation of common mental disorders, psychobiology, psychopharmacology, nursing intervention and research in the aetiology and treatment of men-

tal disorders and mental health legislation.

Courses: NS40, NS48

Credit Points: 8 **Contact Hours:** 3 per week

■ **NSB321 PROFESSIONAL PRACTICE DEVELOPMENT**

This unit is designed to make explicit the link between clinical practice and theoretical knowledge. Students will be assisted to further develop skills in reflective practice and peer consultation as strategies to support a more critical approach to clinical practice. A variety of topics will be addressed through a combination of self-directed learning activities and small group discussion sessions.

Course: NS40, NS48

Corequisite: NSB323

Credit Points: 12 **Contact Hours:** 3 per week

■ **NSB323 CLINICAL PRACTICE 5**

This final clinical unit is designed to enable students to consolidate the knowledge and skills essential in the provision of safe, effective client care. Emphasis will be placed on students' proficiency to think critically, reflect upon their practice and use a problem-solving approach to the provision and management of safe nursing care in preparation for a successful transition to beginning level practice as a registered nurse.

Course: NS40

Prerequisites: NSB122, NSB212, NSB222

Corequisites: NSB321 **Credit Points:** 16

■ **NSB401 NURSING & BIOPHYSICAL HEALTH 2**

Further develops an appreciation of the effects of selected pathophysiologic processes on the meeting of human needs. Topics addressed include the assessment and nursing diagnosis of elimination, mobility, nutrition, skin integrity and sleep/rest problems along with independent and collaborative strategies designed to promote, maintain and/or restore health.

Course: NS40

Credit Points: 8 **Contact Hours:** 3 per week

■ **NSB402 NURSING & MENTAL HEALTH 2**

Expansion of the application of nursing knowledge and research about mental health to the provision of nursing care to clients with mental health problems. It provides, at an advanced level, a theoretical foundation for mental health nursing practice with a focus on diagnostic reasoning and intervention strategies to promote mental health and wellbeing. Topics include: theories of stress and adaptation; assessment, diagnosis and intervention in situations of developmental disorder, selected organic and non-organic mental syndromes and crisis intervention.

Course: NS40

Prerequisites: NSB151, NSB152

Credit Points: 8 **Contact Hours:** 3 per week

■ **NSB406 NURSING & THE FAMILY**

Family nursing practice recognises the substantial impact families can have on the health of individuals within the family unit, and upon society as a whole. An introduction to the knowledge base which underpins family nursing practice, facilitating the development of decision-making skills in this area. Topics include: nature of the family unit; family development; models of the family; and families with particular situational or developmental needs.

Courses: NS40, NS48

Credit Points: 8 **Contact Hours:** 3 per week

■ **NSB407 NURSING & THE COMMUNITY**

Community health is an important focus for nursing practice; provides an introduction to fundamentals of community nursing practice and facilitates development of decision-making skills in this area. Topics include: models of community; community development; perspective

of community health; application of epidemiological principles to community health; community groups with particular health needs; strategies for promotion of community health.

Courses: NS40, NS48

Credit Points: 8 **Contact Hours:** 3 per week

■ **NSB413 ADVANCED RESEARCH IN APPROACHES TO NURSING**

This unit will provide students with the opportunity to further develop their capacity for research and scholarship in preparation for future studies in the Bachelor of Nursing (Honours) course. Topics to be addressed include: statistical analysis – descriptive statistics, sampling, estimation and inferential statistics; research process – generation of researchable questions, literature review, theoretical frameworks in research, research methodology, ethical considerations and conducting research in the field.

Course: NS48

Prerequisite: NSB224

Credit Points: 12 **Contact Hours:** 4 per week

■ **NSB417 INTRODUCTION TO NURSING**

This unit aims to provide a framework within which students with advanced standing in the Bachelor of Nursing (Pre-registration) course can develop an evolving concept of nursing practice. Topics will include an historical, social and political analysis of the development of nursing, contemporary views of nursing as a profession, theoretical perspectives which underpin the development of nursing knowledge, the helping relationship as applied within a nursing context, clinical judgment and decision making within nursing and governance in nursing.

Course: NS40

Credit Points: 12 **Contact Hours:** 3 per week

■ **NSB560 CLINICAL PRACTICE 5A/BH**

Provides the opportunity for students to develop a range of clinical skills associated with the Health strand which was not chosen for study during the second year of the program. Students practise the application of problem-solving skills; selected technical skills; organising, health education, client advocacy skills in both the University (on-campus) and clinical (off-campus) laboratories. The clinical laboratory experiences in this unit are undertaken in settings which include hospitals and palliative care facilities or psychiatric-mental health facilities.

Course: NS40

Corequisites: NSB214, NSB215

Credit Points: 8 **Contact Hours:** 3 per week

■ **NSB561 CLINICAL PRACTICE 5B/BH**

Provides the opportunity for students to develop a range of clinical skills associated with the Health strand which was not chosen for study during the second year of the program. Students practise the application of problem-solving skills; selected technical skills; organising, health education, client advocacy skills in both the University (on-campus) and clinical (off-campus) laboratories. The clinical laboratory experiences in this unit are undertaken in settings which include hospitals and palliative care facilities or psychiatric-mental health facilities.

Course: NS40

Corequisites: NSB214, NSB215

Credit Points: 8

Contact Hours: To be advised by Course Coordinator

■ **NSB570 CLINICAL PRACTICE 5A/MH**

Provides the opportunity for students to develop a range of clinical skills associated with the Health strand which was not chosen for study during the second year of the program. Students practise the application of problem-solving skills; selected technical skills; organising, health education, client advocacy skills in both the University (on-campus) and clinical (off-campus) laboratories. The

clinical laboratory experiences in this unit are undertaken in settings which include hospitals and palliative care facilities or psychiatric-mental health facilities.

Course: NS40 **Corequisites:** NSB214, NSB215
Credit Points: 8 **Contact Hours:** 3 per week

■ NSB571 CLINICAL PRACTICE 5B/MH

Provides students with the opportunity to consolidate skills which they have acquired in previous units, particularly NSB560 / NSB570. It aims at the achievement of an increasing level of competence in clinical situations. The learning experiences are conducted in clinical (off-campus) laboratories, and the settings are as described for the preceding clinical practice units.

Course: NS40 **Corequisites:** NSB560 or NSB570
Credit Points: 8
Contact Hours: To be advised by Course Coordinator

■ NSN406 DISSERTATION

This study represents an independent piece of research completed with the guidance of a supervisor. The dissertation provides an opportunity for coursework conducted in the area of specialisation to be applied in a practical manner reflecting the student's specific interest in nursing. The third section of the three step-locked dissertation units in the Master of Nursing.

Course: NS85 **Credit Points:** 24

■ NSN411 RESEARCH SEMINAR

This unit is the first of three step-locked dissertation units. It provides the student with the opportunity to produce a well researched and indepth literature review in the area of the dissertation topic.

Course: NS85
Credit Points: 12 **Contact Hours:** 3 per week

■ NSN412 RESEARCH PROJECT

Students design and implement research and gather and analyse data. This is the second of three step-locked dissertation units in the Master of Nursing.

Course: NS85 **Credit Points:** 12

■ NSN501 ADVANCED CLINICAL STRATEGIES

This unit is designed to provide registered nurses with advanced skills in the area of clinical problem solving across a variety of clinical contexts. Students undertake the unit in the initial stages of their specialisation course, and the knowledge and skills which they develop are extended and applied through the speciality units.

Courses: NS64, NS85
Credit Points: 12 **Contact Hours:** 3 per week

■ NSN502 NURSING KNOWLEDGE

Students will explore content related to the historical and current development of nursing knowledge. Contemporary nursing practice is examined in relation to the development of nursing as a discipline in order to assist each student to reflect upon their conceptions of nursing as a field of study and practice.

Courses: NS64, NS85
Credit Points: 12 **Contact Hours:** 3 per week

■ NSN505 QUANTITATIVE APPROACHES TO NURSING RESEARCH

Students develop skills in research design and data collection processes related to clinical phenomena. Students have the opportunity to apply statistical concepts and a computer package to the analysis of numerical data.

Course: NS64, NS85
Credit Points: 12 **Contact Hours:** 3 per week

■ NSN506 CLINICAL PROJECT

Offers students the opportunity to implement a project of clinical relevance and value which will lead to the resolution of practical issues facing nursing. It advances

and extend the student's learning from their clinical speciality and the supporting units.

Course: NS85 **Credit Points:** 24
Contact Hours: Negotiated with Course Coordinator

■ NSN507 CONTEMPORARY ISSUES IN NURSING

This unit is designed to explore, through the application of relevant theoretical frameworks, contemporary political insight, social, economic and organisational issues in nursing practice. These issues have a major impact on the context within which nurses provide care. The unit content provides students with a body of knowledge to support their further development of nursing practice.

Courses: NS64, NS85 **Credit Points:** 12
Contact Hours: Negotiated with Course Coordinator

■ NSN508 ADVANCED READINGS IN NURSING

Provides the opportunity for students to access and review a body of literature relevant to an area of individual interest in nursing. This will enable students to extend their knowledge and understanding of a topic which is not specifically addressed elsewhere in the course. In addition, students undertaking this unit will have the opportunity to develop advanced skills in information retrieval, critical analysis and writing for publication.

Courses: NS64, NS85 **Credit Points:** 12
Contact Hours: Negotiated with Course Coordinator

■ NSN509 SPECIAL TOPIC

Provides the opportunity for students to engage in a group learning process to explore, in depth, an area of professional relevance which may be available from local or visiting scholars with particular expertise or knowledge of specific areas. It enables students to capitalise upon important learning opportunities which might not otherwise be possible.

Courses: NS64, NS85 **Credit Points:** 12
Contact Hours: Negotiated with Course Coordinator

■ NSN510 CLINICAL ELECTIVE 1

The purpose of this unit is to explore the theoretical and practical knowledge and skills required to provide effective nursing care to patients with highly specialised nursing management problems. Students will have the opportunity to develop theory and clinical problem-solving skills intrinsic to the nursing care of a specific range of patients within a defined subspecialty nursing area. Content will be individually negotiated in order to meet the needs of nurses, in particular nursing speciality areas. Content may include clinical and theoretical concepts in cardiology, emergency, neuroscience, neonatal, recovery room, or other speciality nursing areas.

Courses: NS64 **Credit Points:** 12
Contact Hours: To be advised by Course Coordinator

■ NSN511 CLINICAL ELECTIVE 2

This unit provides the opportunity for students to expand the professional knowledge and skills which have been acquired during Clinical Elective 1. Students will have the opportunity to acquire theoretical, conceptual and practical knowledge in a variety of advanced topics specific to developing knowledge and theory in specialised areas of nursing practice. The content in this unit will be individually negotiated to provide students with a further opportunity to explore the clinical and theoretical concepts introduced in previous units. Content may include advanced knowledge, skills, and attitudes in cardiology, emergency, neuroscience, neonatal, recovery room, or other speciality nursing areas.

Courses: NS64 **Credit Points:** 12
Contact Hours: To be advised by Course Coordinator

■ NSN521 CLINICAL SPECIALISATION 1

Provides an introduction to the theory, process and practice of nursing in a designated speciality area. Although a range of knowledge and skills is addressed, an emphasis is placed upon health promotion within the context of a speciality area of health care.

Courses: NS64, NS85

Credit Points: 12 Contact Hours: 3 per week

■ NSN522 CLINICAL SPECIALISATION 2

Develop students' understanding of the theory, process and practice of nursing in a designated speciality area of nursing. Although a health promotion framework is reinforced, the emphasis in this unit is placed on the development of strategies to assist clients who are experiencing particular health dysfunctions.

Courses: NS64, NS85

Credit Points: 12 Contact Hours: 3 per week

■ NSN523 CLINICAL SPECIALISATION 3

Provides the opportunity for students to further develop and consolidate professional knowledge and skills which have been acquired during the previous clinical units. Students are facilitated to incorporate theoretical, conceptual and practical knowledge into the assessment, planning, implementation and evaluation of the care required by clients. Block practice.

Courses: NS64, NS85

Credit Points: 12

■ NSN581 CLINICAL STUDIES 1

An exploration of nursing practice in speciality areas of health care at a level which is not possible within the ambit of introductory studies. It enables students to address current trends, changing perspective of practice and issues of national and international significance. The broad perspective which is utilised in this unit equips students to select a specific area(s) of practice to be examined in more detail in NSN582 and NSN583.

Courses: NS64, NS85

Credit Points: 12 Contact Hours: 3 per week

■ NSN582 CLINICAL STUDIES 2

Provides students with the opportunity to build upon their learning in NSN581 by choosing an area of specialised nursing practice which they would like to explore and examine in greater detail. This allows students to deepen their appreciation of the clinical issues which relate to their practice in a particular speciality area of nursing.

Courses: NS64, NS85

Credit Points: 12 Contact Hours: 3 per week

■ NSN583 CLINICAL STUDIES 3

Designed to complement NSN581 and NSN582. Enables the student to examine, from a clinical perspective, an area of specialised nursing practice. This approach not only develops students' awareness of the theoretical aspects of nursing issues, but highlights the clinical implications as well. Provides the opportunity for students to further develop clinical skills which complement their theoretical knowledge of the selected area.

Courses: NS64, NS85

Credit Points: 12

Contact Hours: Negotiated with Course Coordinator

■ OPB210 OPTOMETRY 2

Development of optometry and optometric education; legal standing and scope of service; role of health care services; professionalism and ethical behaviour; professional bodies and relationships with other professions; future of optometry.

Course: OP42

Credit Points: 4 Contact Hours: 2 per week

■ OPB232 OPHTHALMIC OPTICS 2

Optical concepts, refraction and notation; neutralisation, transportation, prismatic effects, multifocals; frame and lens materials, quality, dimensions; vertometers, order-

ing, prescription writing; protection against radiation and mechanical hazards; special lens types.

Course: OP42

Prerequisite: PHB122

Corequisite: PHB240

Credit Points: 12 Contact Hours: 4 per week

■ OPB312 VISUAL SCIENCE 3

The performance of the eye as an optical system is considered in the context of ocular aberrations, refractive errors and image formation and quality. An introduction to visual performance characteristics includes absolute and relative thresholds, dark and light adaptation and relative luminous efficiency curves.

Course: OP42

Prerequisites: PHB240, LSB230

Corequisites: PHB340, LSB451

Credit Points: 12 Contact Hours: 5 per week

■ OPB401 OCULAR & REGIONAL ANATOMY

The gross anatomy of the head and neck region with particular reference to the central nervous system. The macroscopic and microscopic anatomy of the orbit, extraocular muscles, eyelids, lacrimal apparatus, cornea, conjunctiva, sclera, uveal tract, lens, retina, optic nerve, aqueous, vitreous and the neural pathways and vascular circulation. Ocular embryology.

Course: OP42

Prerequisites: LSB230, OPB312

Corequisites: OPB412, OPB415

Credit Points: 10 Contact Hours: 4 per week

■ OPB405 CLINICAL OPTOMETRY 4

Provides students with an understanding of the scope of clinical practice. Students are taught the basics of communicating with patients, how to understand prescriptions and frame selection and adjustment procedures. Measurement of vision, and correct recording procedures will also be covered.

Course: OP42

Prerequisite: OPB312

Corequisites: OPB415, OPB401

Credit Points: 4 Contact Hours: 2 per week

■ OPB412 VISUAL SCIENCE 4

Visual performance is examined with respect to its spatial and temporal characteristics. Perceptual aspects of vision as well as binocular and colour vision performance characteristics.

Course: OP42

Prerequisites: OPB312, PHB340, LSB451

Corequisites: OPB401, OPB405, OPB415

Credit Points: 12 Contact Hours: 5 per week

■ OPB415 OCULAR PHYSIOLOGY

All aspects of ocular physiology including the vegetative physiology of various ocular structures, visual neurophysiology and an introduction to electrophysiological techniques.

Course: OP42

Prerequisites: LSB230, LSB451, OPB312

Corequisites: OPB401, OPB405, OPB412

Credit Points: 12 Contact Hours: 4 per week

■ OPB504 OPHTHALMIC OPTICS 5

A continuation of OPB232 emphasising problems with spectacle lenses. Practical application of theory to ophthalmic dispensing in the laboratory.

Course: OP42

Prerequisites: OPB232, PHB340

Credit Points: 8 Contact Hours: 4 per week

■ OPB505 CLINICAL OPTOMETRY 5

The clinical application of techniques learnt in OPB509 (studied concurrently) in the management of patients presenting for eye examinations.

Course: OP42

Prerequisites: OPB412, OPB405, OPB401, OPB415

Corequisites: OPB509, OPB527, OPB520

Credit Points: 8 Contact Hours: 4 per week

■ OPB509 OPTOMETRY 5

The theory and practice of clinical procedures which are used in eye examinations.

Course: OP42

Prerequisites: OPB412, OPB401, OPB405, OPB415

Corequisites: OPB505, OPB520, OPB527

Credit Points: 18 Contact Hours: 9 per week

■ OPB520 PHARMACOLOGY

General pharmacokinetic and pharmacodynamic principles. Mechanisms of action and therapeutic applications of drugs used in the treatment of central and peripheral systematic diseases.

Course: OP42

Prerequisites: OPB401, OPB415, OPB412, LSB370

Corequisites: OPB505, OPB509, OPB527

Credit Points: 6 Contact Hours: 2 per week

■ OPB527 DISEASES OF THE EYE 5

The detection, diagnosis, referral and management of ocular disease. General pathological considerations. The writing of reports, referral letters and referral procedures. The nature, aetiology and management of congenital, developmental, dystrophic and degenerative anomalies of the external and internal ocular structures and ocular adnexae. The ocular manifestation of systemic disease including cardiovascular, metabolic, endocrine, central nervous system and malnutritional disorders.

Course: OP42

Prerequisites: LSB491, OPB401, LSB451, OPB415

Corequisites: OPB505, OPB509, OPB520

Credit Points: 8 Contact Hours: 3 per week

■ OPB605 CLINICAL OPTOMETRY 6

A continuation of OPB505. The clinical application of techniques learnt in OPB509 and OPB609 (studied concurrently) in the management of patients presenting for eye examinations.

Course: OP42

Prerequisites: OPB504, OPB505, OPB509, OPB527

Corequisites: OPB608, OPB609, OPB617, OPB627

Credit Points: 8 Contact Hours: 4 per week

■ OPB608 OCULAR PHARMACOLOGY

General pharmacological principles are presented as background to a study of pharmacological profiles of ophthalmic preparations; both diagnostic and topical therapeutic agents are considered. Particular emphasis is placed on those ophthalmic drugs used to facilitate an eye examination.

Course: OP42

Prerequisites: OPB505, OPB509, OPB520, OPB527

Co-requisites: OPB605, OPB609, OPB617, OPB627

Credit Points: 6 Contact Hours: 3 per week

■ OPB609 OPTOMETRY 6

Continuation of the theory and practice of routine and advanced clinical procedures which are used when conducting a complete eye examination. Areas include the management of binocular vision anomalies, methods of examining the visual fields and the measurement of intra-ocular pressure.

Course: OP42

Prerequisites: OPB505, OPB509, OPB520, OPB527

Corequisites: OPB605, OPB608, OPB617, OPB627,

Credit Points: 16 Contact Hours: 8 per week

■ OPB617 CONTACT LENS STUDIES 6

An introduction to the basic concepts of contact lens fitting. Areas covered include contact lens instrumentation, contact lens materials and designs, fitting and consultation techniques. The practical component of the unit focuses upon the fitting of contact lenses.

Course: OP42

Prerequisites: OPB509, OPB505, OPB520, OPB527,

Corequisites: OPB609, OPB605, OPB627, OPB608

Credit Points: 6

Contact Hours: 2 per week

■ OPB627 DISEASES OF THE EYE 6

A continuation of OPB527. The anatomical, physiological and pathological aspects of glaucoma. Its symptomatology, methods of detection and diagnosis, management and prognosis. Inflammatory diseases, trauma and tumours of the external and internal ocular structures and ocular adnexae.

Course: OP42

Prerequisites: OPB527, OPB509, OPB505, OPB520

Co-requisites: OPB605, OPB608, OPB609, OPB617

Credit Points: 8 Contact Hours: 4 per week

■ OPB705 CLINICAL OPTOMETRY 7

This is the clinical application of the procedures studied in OPB609 and OPB709 and includes the management of patients in the clinical situation.

Course: OP42 Prerequisites: OPB605, OPB609

Corequisites: OPB709, OPB717, OPB750

Credit Points: 24 Contact Hours: 13 per week

■ OPB709 OPTOMETRY 7

Continuation of OPB609. Provides knowledge and understanding of the theory and clinical procedures involved in paediatric optometry, low vision, colour vision and aniseikonia.

Course: OP42 Prerequisites: OPB605, OPB609

Corequisites: OPB705, OPB717, OPB750

Credit Points: 10 Contact Hours: 5 per week

■ OPB717 CONTACT LENS STUDIES 7

A series of lectures and practical sessions in advanced aspects of contact lens practice. Topics include the physiological consequences of contact lens wear; management of contact lens patients; fitting of lenses for keratoconus, extended wear and presbyopia. Practical sessions provide training in advanced diagnostic and fitting techniques.

Course: OP42 Prerequisites: OPB617, OPB605

Corequisites: OPB705, OPB709, OPB750

Credit Points: 6 Contact Hours: 2 per week

■ OPB750 PROJECT

Students are required to undertake project work in Year 4, Semesters 1 and 2, working in groups of up to three on projects of their own choosing or on a topic chosen from a suggested list. Topics must be original. Students conduct a literature search (including a computer-based search in conjunction with a reference librarian), decide on the experimental hypotheses, plan and execute the experiment, analyse the results and write a report in manuscript form which it is hoped is suitable for publication in the open literature. Oral presentations are given by each group to their peers, third-year students and staff, as part of a formal Year 4, Semester 2 colloquium.

Course: OP42

Corequisites: OPB709, MAB258, OPB705, OPB717

Credit Points: 10 Contact Hours: 2 per week

■ OPB803 OCCUPATIONAL/PUBLIC HEALTH OPTOMETRY

A course of study to introduce the basic concepts of eye safety and visual ergonomics. Content includes eye safety programs, occupational vision screening, legal aspects of eye safety, eye hazards: traumatic, radiation and chemical, eye protection, visual ergonomics and illumination engineering.

Course: OP42

Prerequisite: OPB709

Corequisites: OPB805, OPB750, OPB870

Credit Points: 6 Contact Hours: 2 per week

■ OPB805 CLINICAL OPTOMETRY 8

A continuation of OPB705. This unit places emphasis on the students' decision-making skills in the evalua-

tion, care and treatment of patients who may have a wide range of visual disorders.

Course: OP42

Prerequisites: OPB705, OPB717, OPB709

Co-requisites: OPB750, OPB803, OPB810

Credit Points: 32 **Contact Hours:** 17 per week

■ OPB810 PRACTICE MANAGEMENT

Optometry's role in health care; professional and ethical behaviour; relevant state and federal Acts; professional associations; types of practice; optometric practice and the law.

Course: OP42

Corequisites: OPB805, OPB803, OPB750

Credit Points: 4 **Contact Hours:** 2 per week

■ OPN601 ADVANCED CONTACT LENS STUDIES

Instruction in specialised fitting techniques, including keratoconus, scleral lenses and prosthetics. There is also an emphasis on the design, manufacture and modification of lenses. The physiology and pathology associated with contact lens wear is also covered in detail.

Course: HL88

Credit Points: 12 **Contact Hours:** 3 per week

■ OPN602 ADVANCED CLINICAL METHODS

Exploration of the techniques for the examination of the eye and visual function. Topics include: visual fields; static automated perimetry; screening versus threshold methods and their interpretation; modelling and trend analysis of visual field data; the visual field in glaucoma; contrast sensitivity function; alternative tests and their interpretation; clinical applications of contrast sensitivity function testing; colour vision; current research in congenital and acquired disorders; clinical tests, their application and interpretation; the design of colour vision screening procedures; entoptic phenomena and their application as diagnostic tools; advanced slit lamp biomicroscopy, gonioscopy, photography and fundus examination; other advanced methods of examination such as ultrasonography, dark adaptation, motion sensitivity, eye movement studies and electrophysiology.

Course: HL88

Credit Points: 12 **Contact Hours:** 3 per week

■ OPN603 ADVANCED OCULAR PHARMACOLOGY

Exploration of the use of drugs for the treatment of eye diseases. The unit does not seek to qualify optometrists to use these drugs, nor to impart the clinical skills or procedures necessary for such a scope of practice; instead, it will supply the background knowledge and understanding of current theoretical and practical research concepts in therapeutics so essential to complement this evolution in health care. Topics include: the anatomy, physiology and pathology of tissue changes in relevant eye diseases; neurohumoral transmission current concepts in receptor dynamics; the actions of systemic drugs; including antihypertensive, antiarthritic, asthma, antidepressant and anti-anxiety drugs; the actions and uses of drugs for the treatment of eye disease such as infections, inflammation, allergy and glaucoma; current research into treatment strategies for eye disease; optometry and therapeutic care.

Course: HL88

Credit Points: 12 **Contact Hours:** 3 per week

■ OPN605 VISION REHABILITATION

The epidemiology of visual impairment; the impact of visual impairment on individuals and families; the range of rehabilitation services available; assessment methods; preparation of individual rehabilitation programs for children and adults who are visually impaired.

Course: HL88

Credit Points: 12 **Contact Hours:** 3 per week

■ PHA154 INTRODUCTORY PHYSICS

An introduction to the basic concepts involved in the study of linear mechanics, ideal gases, liquids and solids, elasticity, surface tension, temperature and its measurements, heat content, heat transfer, reflection and refraction of light at plane surfaces, use of lenses in simple optical instruments, current, electricity, e.m.f. resistance, circuit analysis, heating effects, electrical measurements using moving coil galvanometers, potentiometers and Wheatstone bridge, magnetic field with simple applications. A series of laboratory experiments emphasises the above concepts.

Course: SC15

Credit Points: 8 **Contact Hours:** 3 per week

■ PHB001 INTRODUCTORY PHYSICS

Gives students without Senior Physics a basic grounding. Topics include: kinematics, mechanics, electricity and magnetism.

Course: SC30, ED50

Credit Points: 6 **Contact Hours:** 3 per week

Incompatible with: SA or better in Senior Physics.

■ PHB111 PHYSICS 1B

A course of lectures and laboratory work on AC and DC circuit theory, electronics, vibrations and waves, sound, geometrical optics.

Course: PH38

Prerequisites: SA – Senior Physics.

Credit Points: 8 **Contact Hours:** 3 per week

■ PHB122 PHYSICS 1

A course of lectures and laboratory work on data analysis, kinematics and mechanics, DC and AC circuit theory, electronics, vibrations and waves, sound, geometrical optics and physical optics.

Courses: CH32, ED50, OP42, SC30

Prerequisites: SA Senior Physics

Corequisites: PHB001 unless Senior Physics has been passed at SA or better.

Credit Points: 12 **Contact Hours:** 5 per week

■ PHB134 ENGINEERING PHYSICS 1B

A basic unit in the physics of waves and optics: moving and stationary waves in various media, interference of waves, beat acoustics and shock waves and measurement of sound; geometrical and physical optics including reflection, refraction, dispersion, interference and diffraction, polarisation, optical instruments, design and resolution, and photometry.

Courses: CE42, EE43, EE44, IF23, IF54, IF56, ME23, ME45, ME46

Credit Points: 8 **Contact Hours:** 3 per week

■ PHB144 APPLIED SCIENCE FOR DESIGNERS 1

Physics for environmental design: light and colour, heat and energy transfer, solar energy physics, sound and acoustics, electricity, magnetism and electronics for the built environment.

Courses: BN30, PU49

Credit Points: 6 **Contact Hours:** 3 per week

■ PHB150 PHYSICS 1H

Basic physical measurements, mechanics, heat, waves, acoustics, ultrasonics and optics, and the instrumentation used to measure biological parameters.

Courses: LS36, PU42, PU44, PU45, SC30

Credit Points: 12 **Contact Hours:** 6 per week

■ PHB172 PHYSICS FOR SURVEYORS

Physics relating to modern surveying instrumentation; optics, physics of materials, physics of the atmosphere, electromagnetic and ultrasonic wave applications, topics in electronics.

Courses: IF54, IF55, PS47, PS48

Credit Points: 8 **Contact Hours:** 3 per week

■ **PHB178 PRINCIPLES OF MEDICAL RADIATIONS**

Principles of medical imaging and methods of detection, diagnosis and treatment of cancer.

Course: PH38

Credit Points: 12 Contact Hours: 6 per week

■ **PHB222 PHYSICS 2**

A course of lectures and laboratory work on mechanical properties of matter, fluids, gravitational fields, electromagnetic fields, thermal physics, quantum and radiation physics.

Courses: ED50, SC30

Prerequisites: SA – Senior Physics

Corequisites: PHB001 unless Senior Physics has been passed at SA or better.

Credit Points: 12 Contact Hours: 5 per week

■ **PHB234 ENGINEERING PHYSICS 2B**

The physics of heat and properties of matter, including the kinetic theory of gases, temperature scales and thermometers, heat and heat transfer, thermodynamics and the molecular properties of matter, electric charge and electric fields, Gauss's Law, electric potential, capacitance, magnetism and magnetic fields, electromagnetic induction, inductance.

Courses: EE43, EE44, IF23

Credit Points: 8 Contact Hours: 3 per week

■ **PHB240 OPTICS 2**

The principles of geometrical optics as they apply to rectilinear propagation, reflection and refraction for paraxial rays for monochromatic light for single surfaces, thin lenses, cylindrical, sphero-cylindrical and toric lenses, lens systems in air, the eye and a selection of optical instruments; study of the optics of mono-chromatic and chromatic aberrations and of photometry and colour.

Course: OP42

Prerequisite: PHB150

Corequisite: OPB132

Credit Points: 12 Contact Hours: 7 per week

■ **PHB252 KINESIOLOGY & BIOMECHANICS**

Principles, methods and interpretation of measurement of human movement, particularly associated with the lower limb; principles of lower limb function (standing, walking and running).

Course: PU45

Credit Points: 8 Contact Hours: 2 per week

■ **PHB262 PHYSICS 2L**

Extension of PHB150 including fluids, AC, DC circuit theory, with emphasis on electronics and instrumentation, fields, modern and nuclear physics.

Course: PU45

Credit Points: 8 Contact Hours: 4 per week

■ **PHB263 PHYSICS 2E**

Extension of PHB150 including fluids, AC, DC circuit theory, with emphasis on electronics and instrumentation, fields, modern and nuclear physics. Fluid mechanics. Biomechanics.

Course: ED50, PU42, PU44, SC30

Credit Points: 12 Contact Hours: 6 per week

■ **PHB272 RADIATION PHYSICS 1**

Electrostatics, electromagnetism, the production of X-rays and their interaction with matter.

Course: PH38

Credit Points: 12 Contact Hours: 5 per week

■ **PHB275 PROCESSING TECHNOLOGY**

A study of the processes involved in the production of a visible image in radiography, including: latent image formation, processing, techniques and equipment relevant to radiography.

Course: PH38

Credit Points: 4

Contact Hours: 2 per week

■ **PHB276 GENERAL RADIOGRAPHY 1**

A program of lectures relating to radiography of the skeletal system.

Course: PH38

Prerequisites: LSB141, PHB178

Corequisite: LSB241, PHB278

Credit Points: 12

Contact Hours: 6 per week

■ **PHB278 GENERAL RADIOGRAPHY PRACTICE 1**

A program of practical sessions relating to radiography of the skeletal system.

Courses: PH38

Corequisite: PHB276

Credit Points: 8

Contact Hours: 3 per week

■ **PHB286 TREATMENT PLANNING 1**

Introduction to the techniques of radiotherapy treatment planning.

Course: PH38

Prerequisite: PHB170

Credit Points: 12

Contact Hours: 6 per week

■ **PHB287 MEGAVOLTAGE THERAPY 1**

Introduction to the basic techniques of radiotherapy including beam direction and defining devices.

Course: PH38

Prerequisite: PHB178

Corequisite: LSB241

Credit Points: 8

Contact Hours: 4 per week

■ **PHB313 RADIOGRAPHIC IMAGE INTERPRETATION**

Image formation in medical radiography, and the significance of diagnostic techniques and their image appearances in assessment of the lower extremity.

Course: PU45

Credit Points: 8

Contact Hours: 3 per week

■ **PHB322 PHYSICS 3A**

Laplace Transforms; SHM; damped harmonic motion; forced oscillations; coupled oscillations; wave transmission and reflection; wave systems; AC circuit analysis; power; network analysis; resonance; AC measurements.

Courses: ED50, SC30

Prerequisites: MAB222, PHB122, PHB222

Corequisite: MAB432

Credit Points: 12

Contact Hours: 5 per week

■ **PHB332 PHYSICS 3B**

Covers any two of the following: optics, electronics, materials, experimental method.

Courses: ED50, SC30

Prerequisites: PHB122, PHB222 and (MAB212 or MAB222)

Credit Points: 12

Contact Hours: 5 per week

■ **PHB340 OPTICS 3**

The application of geometrical optics to selected aspects of optometry including lens form and thickness, contact lenses, spectacle lens design and spherical surfaces; the wave nature of light with emphasis on interference, interferometry, diffraction and polarisation; the specialised topics of optical processing, lasers and the evaluation of optical systems.

Course: OP42

Prerequisites: PHB222, PHB240

Credit Points: 12

Contact Hours: 7 per week

■ **PHB342 PHYSICS 3C**

See PHB332

Courses: ED50, SC30

Prerequisites: PHB122, PHB222 and (MAB212 or MAB222)

Credit Points: 12

Contact Hours: 5 per week

■ **PHB373 NUCLEAR MEDICINE IMAGING 1**

The principles, equipment and applications of nuclear medicine imaging.

Courses: PH38, PH90

Credit Points: 4

Contact Hours: 2 per week

■ **PHB374 RADIOGRAPHIC EQUIPMENT 1**

Discussion of design considerations of X-ray generators and equipment for control of beam direction.

Course: PH38

Credit Points: 4

Contact Hours: 3 per week

■ **PHB376 GENERAL RADIOGRAPHY 2**

An extension of topics introduced in PHB276 to include more advanced techniques of skeletal radiography, ward and operating theatre radiography, and examinations using contrast media.

Course: PH38

Prerequisites: LSB241, PHB276, PHB278

Credit Points: 8

Contact Hours: 5 per week

■ **PHB378 GENERAL RADIOGRAPHIC PRACTICE 2**

A program of practical sessions relating to topics introduced in PHB376.

Course: PH38

Prerequisites: LSB241, PHB276, PHB278

Corequisites: PHB376

Credit Points: 8

Contact Hours: 3 per week

■ **PHB379 CLINICAL RADIOGRAPHY 1**

Clinical experiences in radiographic examinations introduced in PHB276 and PHB376. Experience is obtained in approved clinical departments.

Course: PH38

Prerequisites: LSB241, PHB276, PHB278

Corequisites: PHB378

Credit Points: 8

Contact Hours: 5 per week

■ **PHB382 RADIOTHERAPY PHYSICS 1**

A study of the design, physical aspects and operating characteristics of megavoltage and telecurie units.

Course: PH38

Prerequisite: PHB272

Credit Points: 4

Contact Hours: 2 per week

■ **PHB386 TREATMENT PLANNING 2**

An extension of the study of treatment planning introduced in PHB286 to the planning of complex techniques of photon therapy and electron therapy.

Course: PH38

Prerequisites: PHB286, PHB287, LSB241

Credit Points: 12

Contact Hours: 5 per week

■ **PHB387 MEGAVOLTAGE THERAPY 2**

The principles and applications of megavoltage therapy including techniques for specific sites.

Course: PH38

Prerequisites: LSB241, PHB287

Credit Points: 12

Contact Hours: 5 per week

■ **PHB389 CLINICAL RADIOTHERAPY 2**

Practical exercises in megavoltage therapy related to topics introduced in PHB287 and PHB387. The programs are carried out in clinical departments.

Course: PH38 Prerequisites: LSB241, PHB286, PHB287

Corequisite: PHB387

Credit Points: 8

Contact Hours: 4 per week

■ **PHB404 SAFETY TECHNOLOGY 2**

Vibration and noise, electrical hazards, sources and hazards of ionising and non-ionising radiation.

Course: PU44

Prerequisites: PHB263

Credit Points: 12

Contact Hours: 6 per week

■ **PHB422 PHYSICS 4A**

Any two of the following: thermodynamics and statistics, mechanics, radiation physics, astronomy and astrophysics, relativity and fluids, electronics, applied acoustics.

Courses: ED50, SC30

Prerequisites: PHB122, PHB222 and (MAB212 OR MAB222)

Credit Points: 12

Contact Hours: 5 per week

■ **PHB432 PHYSICS 4B**

See PHB422.

Courses: ED50, SC30

Prerequisites: PHB122, PHB222 and (MAB212 or MAB222)

Credit Points: 12

Contact Hours: 5 per week

■ **PHB462 EXPERIMENTAL PHYSICS 4**

Experimental method and design; electronics; preparation and presentation of reports; group project.

Course: SC30

Prerequisites: At least two level 2 Physics units including electronics module

Credit Points: 12

Contact Hours: 5 per week

■ **PHB471 RADIATION PHYSICS 2**

A study of the philosophy and protocol of radiation protection. The question of protection is treated in a manner which brings into perspective the details of protection dealt with in other units of the course.

Courses: PH38, PH90

Credit Points: 4

Contact Hours: 2 per week

■ **PHB473 MEDICAL ULTRASOUND**

The physical principles and application of ultrasound.

Courses: PH38, PH90

Credit Points: 4

Contact Hours: 2 per week

■ **PHB474 RADIOGRAPHIC EQUIPMENT 2**

A study of the equipment used in specialised radiography, including mobiles, tomographic units, skull tables and mammography units.

Course: PH38

Credit Points: 4

Contact Hours: 2 per week

■ **PHB475 MEDICAL RADIATION COMPUTING 1**

An introduction to the capabilities of computer hardware and software, and image processing.

Courses: PH38, PH90

Prerequisite: MAB151

Credit Points: 8

Contact Hours: 3 per week

■ **PHB476 SPECIAL PROCEDURES**

Specialised techniques of radiography: the skull, obstetrics, gynaecology, CNS and paediatrics.

Course: PH38

Prerequisites: PHB376, PHB378

Credit Points: 12

Contact Hours: 4 per week

■ **PHB479 CLINICAL RADIOGRAPHY 3**

Clinical experience in approved departments in radiographic examinations discussed in PHB376.

Course: PH38

Prerequisites: PHB379

Corequisite: PHB476

Credit Points: 8

Contact Hours: 4 per week

■ **PHB485/1 PRINCIPLES OF TREATMENT 1**

The principles underlying the choice of treatment of cancer in specific sites including consideration of associated treatment.

Course: PH38

Prerequisites: PHB178, PHB389

Credit Points: 4

Contact Hours: 2 per week

■ **PHB487 MEGAVOLTAGE THERAPY 3**

An extension of the topic introduced in PHB387 to include the full range of treatment by megavoltage therapy for cancer in specific sites. Consideration includes techniques, planning, patient positioning, outlines and measurements.

Course: PH38

Prerequisites: PHB387, PHB389

Corequisite: PHB585

Credit Points: 12

Contact Hours: 5 per week

■ **PHB489 CLINICAL RADIOTHERAPY 3**

Clinical experiences in approved departments in techniques of megavoltage therapy.

Course: PH38

Prerequisites: PHB387, PHB389

Corequisite: PHB487

Credit Points: 8

Contact Hours: 4 per week

■ **PHB500 ADVANCED IMAGING PRACTICE 1**
The content of this unit includes topics from a number of areas and is designed to complement the particular background of persons undertaking the conversion program.

Course: PH90 Credit Points: 14

■ **PHB504 INSTRUMENTATION**

Transducers; noise, guarding and shielding; signal conditioning; digital filters; intelligent instruments and standard busses.

Course: ME46 Credit Points: 8 Contact Hours: 3 per week

■ **PHB512 PROJECT**

Projects are undertaken in a wide range of topics normally submitted by staff. They are commonly related to School of Physics research activities in materials science, health and medical physics, environmental and aerosol physics, and instrumentation, and may involve an extension of existing knowledge and technique or an introductory investigation into a new procedure.

Courses: ED50, SC30

Prerequisites: At least three third level Physics units.

Credit Points: 12 Contact Hours: 5 per week

■ **PHB522 APPLIED QUANTUM MECHANICS**

Schrodinger equation, potential wells, hydrogen atom, angular momentum, perturbation theory, atomic and molecular spectra, Zeeman effects, line broadening phenomena, spectroscopy, lasers.

Course: SC30

Prerequisites: MAB432, MAB452, PHB322

Credit Points: 12 Contact Hours: 5 per week

■ **PHB532 ELECTROMAGNETIC FIELD THEORY**

Static field theory: electric and magnetic fields. Solution of problems by analytic and non-analytic methods. Dielectrics. Magnetic materials. Electromagnetic wave theory: time-varying fields, Maxwell's equation, displacement current, electromagnetic energy density. Wave equation and solutions, boundary conditions, reflection and refraction of waves. Wave guides and radiation theory.

Course: SC30 Prerequisites: PHB322, MAB452
Credit Points: 12 Contact Hours: 5 per week

■ **PHB562 PHYSICAL METHODS OF ANALYSIS**

X-ray diffraction: qualitative and quantitative analysis, texture and stress analysis. X-ray fluorescence. Electron microscopy: transmission electron microscopy, scanning electron microscopy, electron probe microanalysis. Theory, instrumentation and application of atomic emission and absorption spectroscopy, mass spectrometry and gas chromatography, infra-red and Raman spectroscopy, neutron activation analysis, nuclear magnetic resonance spectroscopy and surface analysis techniques (Auger electron spectroscopy, x-ray photoelectron spectroscopy, secondary ion mass spectrometry).

Courses: ED50, SC30

Prerequisite: PHB342 (Materials)

Credit Points: 12 Contact Hours: 5 per week

■ **PHB570 ADVANCED RADIOGRAPHIC PRACTICE 1**

The content of this unit includes topics from a number of areas and is designed to complement the particular background of persons undertaking the conversion program.

Course: PH90 Credit Points: 20

■ **PHB571 QUALITY ASSURANCE/IMAGE EVALUATION**

The principles and techniques used in the quality assurance of medical imaging apparatus and ancillary equipment.

Course: PH90

Credit Points: 8 Contact Hours: 4 per week

■ **PHB572 IMAGE RECORDING & EVALUATION**

Lectures and practical exercises on non-film image formation evaluation. Information theory.

Course: PH38

Credit Points: 4 Contact Hours: 2 per week

■ **PHB573 DIGITAL IMAGING MODALITIES**

The principles, methods and applications of CT, digital radiography and MRI in medical imaging.

Courses: PH38, PH90

Credit Points: 8 Contact Hours: 2 per week

■ **PHB574 QUALITY ASSURANCE IN MEDICAL IMAGING**

A study of the principles and techniques used in the quality assurance of medical imaging apparatus and ancillary equipment.

Course: PH38

Credit Points: 6 Contact Hours: 3 per week

■ **PHB575 MEDICAL RADIATION COMPUTING 2**

Applications of computers in image processing and radiotherapy.

Course: PH38, PH90

Prerequisite: PHB475
Credit Points: 8 Contact Hours: 3 per week

■ **PHB576 ADVANCED RADIOGRAPHIC TECHNIQUE 1**

A study of the principles and techniques used in advanced radiographic techniques including angiography, the salivary glands, arthrography, sinography, arteriography and venography.

Course: PH38 Prerequisites: PHB476, PHB479

Corequisite: PHB578

Credit Points: 12 Contact Hours: 6 per week

■ **PHB578 IMAGE INTERPRETATION**

Lectures and practical exercises on image interpretation including technical and diagnostic quality.

Courses: PH38, PH90

Credit Points: 4 Contact Hours: 2 per week

■ **PHB579 CLINICAL RADIOGRAPHY 4**

Clinical experience in special radiographic procedures as introduced in PHB476.

Course: PH38

Prerequisites: PHB476, PHB479
Credit Points: 8 Contact Hours: 4 per week

■ **PHB583 COMPLEMENTARY & EVOLVING TECHNIQUES**

The principles, strengths and stage of development of techniques which are complementary to radiotherapy treatment of cancer including: hyperbaric O₂ therapy, neutron therapy, pi-meson therapy, chemotherapy, cryotherapy and hyperthermia.

Course: PH38

Credit Points: 6 Contact Hours: 3 per week

■ **PHB584 PRINCIPLES OF TREATMENT 2**

A continuation of the detailed discussion started in PHB484 to include the principles of treatment of cancer in all sites, and benign diseases.

Course: PH38

Credit Points: 4 Contact Hours: 2 per week

■ **PHB585 COMPUTER ASSISTED TREATMENT PLANNING 1**

A study of planning hardware and software to include two-dimensional planning. Development of concepts to an advanced level of understanding of computer-assisted optimisation of isodose distributions.

Courses: PH38, PH90

Prerequisites: PHB386, LSB841

Corequisites: PHB487

Credit Points: 12 **Contact Hours:** 4 per week

■ **PHB587 ORTHOVOLTAGE & SUPERFICIAL THERAPY**

The specialised techniques of orthovoltage and superficial radiotherapy.

Course: PH38

Prerequisites: PHB487, PHB489, PHB482

Credit Points: 10 **Contact Hours:** 4 per week

■ **PHB589 CLINICAL RADIOTHERAPY 4**

Clinical experience in the techniques of radiotherapy employing orthovoltage and superficial therapy.

Course: PH38 **Prerequisites:** PHB487, PHB489

Corequisite: PHB587

Credit Points: 12 **Contact Hours:** 6 per week

■ **PHB600 ADVANCED IMAGING PRACTICE 2**

See PHB500

Course: PH90

Credit Points: 12 **Contact Hours:** 4 per week

■ **PHB622 SOLID STATE PHYSICS**

Crystal structures and bonding, reciprocal lattice, Brillouin zones; mechanical and thermal properties of solids; free electron and band theory; semiconductors; magnetic properties of solids; dielectric properties of materials; amorphous materials; superconductivity.

Course: SC30

Prerequisites: Second level Materials, PHB422, PHB522

Credit Points: 12 **Contact Hours:** 5 per week

■ **PHB632 NUCLEAR & PARTICLE PHYSICS**

Nuclear reaction, nuclear model, particle physics, particle detectors and accelerators and applications.

Course: SC30 **Prerequisites:** PHB432, PHB522

Credit Points: 12 **Contact Hours:** 5 per week

■ **PHB642 APPLIED RADIATION & HEALTH PHYSICS**

Lectures and laboratory work on the topics: properties of ionising and non-ionising radiation. Detection and measurement techniques. Radiobiological effects of ionising and non-ionising radiation and health physics. Medical and industrial applications of radiation. Environmental radiation and radioactivity.

Course: SC30 **Prerequisite:** PHB432

Credit Points: 12 **Contact Hours:** 5 per week

■ **PHB662 TOPICS IN PHYSICS**

The content varies from year to year and is determined by current research advances and availability of staff. No more than four topics are included, so as to allow a reasonable cover of the material. Topics in recent years have been drawn from the following fields of interest: health and medical physics, optoelectronics, geophysics, environmental physics and materials science.

Courses: ED50, SC30

Prerequisites: At least 36 credit points in second level Physics units

Credit Points: 12 **Contact Hours:** 5 per week

■ **PHB670 ADVANCED RADIOGRAPHIC PRACTICE 2**

See PHB570

Course: PH90 **Credit Points:** 20

■ **PHB671 RADIATION BIOLOGY**

A study of the biological effects on ionising and non-ionising radiation.

Courses: PH38, PH90

Credit Points: 4 **Contact Hours:** 2 per week

■ **PHB672 PROJECT**

A supervised project involving either application of ex-

isting theoretical practical knowledge or a literature survey of a selected relevant topic.

Courses: PH38, PH90

Credit Points: 12

■ **PHB673 PROJECT**

A supervised project involving either application of existing theoretical practical knowledge or a literature survey of a selected relevant topic.

Courses: PH38, PH90

Credit Points: 12

■ **PHB674 RADIATION SAFETY & BIOLOGY**

A study of the philosophy and protocol of radiation protection. The question of protection is treated in a manner which brings into perspective the details of protection dealt with in other units of the course. The biological effects of ionising and non-ionising radiation.

Courses: PH38, PH90

Credit Points: 8 **Contact Hours:** 4 per week

■ **PHB676 ADVANCED RADIOGRAPHIC TECHNIQUE 2**

An extension of topics in advanced radiographic technique introduced in PHB576 to include mammography, techniques for examination of the lymphatic system, and emerging techniques.

Course: PH38 **Prerequisites:** PHB576, PHB579

Credit Points: 8 **Contact Hours:** 3 per week

■ **PHB679 CLINICAL RADIOGRAPHY 5**

Clinical experience in advanced radiographic techniques.

Course: PH38, PH90

Prerequisites: PHB576, PHB579

Credit Points: 14 **Contact Hours:** 6 per week

■ **PHB680 NUCLEAR MEDICINE IMAGING 2**

Lectures, practical exercises and clinical experiences in nuclear medicine imaging. This unit expands on topics introduced in PHB373 and provides an indepth study of nuclear medicine imaging techniques.

Courses: PH38, PH90 **Prerequisite:** PHB373

Credit Points: 10 **Contact Hours:** 5 per week

■ **PHB681 COMPUTED TOMOGRAPHY IMAGING**

Lectures, practical exercises and clinical experiences in CT imaging; expands on topics introduced in PHB573 indepth study of CT imaging techniques.

Courses: PH38, PH90 **Prerequisite:** PHB573

Credit Points: 10 **Contact Hours:** 5 per week

■ **PHB683 ONCOLOGICAL IMAGING**

Principles and techniques of medical imaging used in the detection of cancer: CT, MRI, U/S and NM.

Courses: PH38, PH90

Credit Points: 6 **Contact Hours:** 3 per week

■ **PHB685 COMPUTER ASSISTED TREATMENT PLANNING 2**

The use of computers in the planning of non-standard and complex radiotherapy treatment including arc and rotation techniques, irregular field techniques, three-dimensional plans.

Courses: PH38, PH90 **Prerequisite:** PHB585

Credit Points: 8 **Contact Hours:** 4 per week

■ **PHB687 SPECIALISED RADIOTHERAPY TECHNIQUE**

Specialised radiotherapy techniques including techniques applicable to the child patient and patients with communicable disease, theatre procedures, total body photon and electron therapy.

Courses: PH38, PH90

Credit Points: 10 **Contact Hours:** 4 per week

■ **PHB689 CLINICAL RADIOTHERAPY 5**

Clinical experience in specialised radiotherapy treatment techniques.

Course: PH38 Prerequisite: PHB589, and PHB685
Corequisite: PHB687
Credit Points: 8 Contact Hours: 4 per week

■ **PHB705 PROJECT**

A research project in which the student initiates and undertakes an investigation of some magnitude and originality. Topics are related to research interests in the Centre for Medical and Health Physics, or the School of Physics

Course: SC60 Credit Points: 48

■ **PHB706 QUANTUM MECHANICS**

Linear vector space; operators; eigenvalues and eigenvectors; physical variables and Hermitian Operators; action principle; matrix mechanics; potential scattering; Born approximation; perturbation theory; many particle systems; introduction to superconductivity.

Course: SC60
Credit Points: 12 Contact Hours: 4 per week

■ **PHB707 ADVANCED MATERIALS**

Amorphous and nanocrystalline structures; ceramics; metastable interstitial nitrides; composites; superconducting ceramics; fabrication techniques; testing and analysis of advanced materials; shock processing.

Course: SC60
Credit Points: 12 Contact Hours: 4 per week

■ **PHB708 ADVANCED TOPICS IN PHYSICS**

No more than three topics are included. The content is determined by current research advances, availability of appropriate staff, visiting academics, etc. and may vary from year to year.

Course: SC60
Credit Points: 12 Contact Hours: 4 per week

■ **PHB789 ADVANCED RADIOTHERAPEUTIC PRACTICE 1**

The content of this unit includes topics from a number of areas and is designed to complement the particular background of persons undertaking the conversion program.

Course: PH90 Credit Points: 16

■ **PHB889 ADVANCED RADIOTHERAPEUTIC PRACTICE 2**

See PHB789
Course: PH90 Credit Points: 20

■ **PHN112 MEDICAL IMAGING SCIENCE**

Introduction to the 'C' programming language; programming techniques and algorithms; numerical analysis; and digital image processing.

Course: PH80, SC60
Credit Points: 12 Contact Hours: 4 per week

■ **PHN113 RADIATION PHYSICS**

Radioactivity and the interaction of ionising radiation with matter; applied radiation counting techniques; biological effects of ionising radiation.

Course: PH80, SC60
Credit Points: 12 Contact Hours: 4 per week

■ **PHN114 MICROPROCESSORS & INSTRUMENTATION**

The capabilities and limitations of a given instrument; design of interfaces between microcomputers and transducers; signal conditioning and signal conversion circuits for data acquisition.

Course: PH80, SC60
Credit Points: 12 Contact Hours: 4 per week

■ **PHN155 ULTRASONIC EXAMINATION IN OBSTETRICS/GYNAECOLOGY**

The normal and abnormal anatomy and functions related to gynaecology and obstetrics, the ultrasonic techniques used and the appearance of related images.

Course: PH80
Credit Points: 6 Contact Hours: 2 per week

■ **PHN156 ULTRASONIC EXAMINATION OF THE ABDOMEN**

A study of the techniques used in the ultrasonic examination of the abdomen including the appearance on the ultrasound image of normal abdominal anatomy and its alteration by pathological processes.

Course: PH80 Corequisite: PHN162
Credit Points: 6 Contact Hours: 2 per week

■ **PHN162 PRINCIPLES OF MEDICAL ULTRASOUND**

Principles of diagnostic ultrasound; physics of ultrasound; ultrasound equipment design and performance; image production and artefacts; general principles of scanning; patient and equipment care; use of coupling materials and acoustic windows and transducer selection.

Course: PH80
Credit Points: 12 Contact Hours: 4 per week

■ **PHN171 ADVANCED ONCOLOGICAL IMAGING**

Principles and applications of advanced imaging modalities applied to detect cancer; application of anatomical structures and tumour pathology to advanced imaging modalities; the principles and applications of portal imaging.

Course: PH80
Credit Points: 12 Contact Hours: 4 per week

■ **PHN173 ADVANCED RADIOTHERAPY TECHNIQUE**

Detailed study of brachytherapy equipment; technique and brachytherapy practice.

Course: PH80
Credit Points: 12 Contact Hours: 4 per week

■ **PHN181 PRINCIPLES OF MEDICAL IMAGE PROCESSING**

The principles of image data acquisition in digital imaging modalities including nuclear medicine; magnetic resonance; digital subtraction angiography and computed tomography. Convolution theorem; image enhancement techniques; image reconstruction; three-dimensional image presentation techniques.

Course: PH80
Credit Points: 6 Contact Hours: 2 per week

■ **PHN182 COMPUTED TOMOGRAPHY**

The principles of computed tomography including equipment and contrast media considerations; techniques of specific examination - head, neck, thorax, abdomen, pelvis, extremities, therapy considerations and new developments.

Course: PH80
Credit Points: 6 Contact Hours: 2 per week

■ **PHN183 NUCLEAR MEDICINE**

Preparation, dispensing and quality control of radiopharmaceuticals; legal requirements; structure and function of biochemicals; biorouting of radiopharmaceuticals; dose calculations; safety considerations.

Course: PH80
Credit Points: 12 Contact Hours: 4 per week

■ **PHN184 BREAST IMAGING**

Medical imaging of the breast; principles of mammographic and sonographic imaging; breast anatomy and physiology; pathological conditions affecting the breast and their mammographic and sonographic appearances; advanced mammographic techniques; mammographic and sonographic quality assurance.

Course: PH80
Credit Points: 12 Contact Hours: 4 per week

■ PHN197 CLINICAL ATTACHMENT 1

A supervised practical program carried out in an approved medical imaging department. Students are required to undertake specified clinical practice as applicable to their area of specialisation and meet minimum requirements of clinical hours and case scope and numbers.

Course: PH80 Credit Points: 12

■ PHN211 MEDICAL IMAGING

The physical principles involved in the production of the radiographic, ultrasonic, magnetic resonance and nuclear medicine images; quality control protocols.

Course: PH80, SC60
Credit Points: 12 Contact Hours: 4 per week

■ PHN212 RADIOTHERAPY

Overview of the application of physics to radiotherapy; theoretical and practical aspects of the major topics in radiotherapy physics.

Course: PH80, SC60
Credit Points: 12 Contact Hours: 4 per week

**■ PHN213 BIOMECHANICS/
PHYSIOLOGICAL MEASUREMENT**

The basic concepts and principles of measurement in dynamic physiological systems; principles of design, construction and operation of transducers, electrodes and other instrumentation.

Course: PH80
Credit Points: 12 Contact Hours: 4 per week

**■ PHN214 HEALTH & OCCUPATIONAL
PHYSICS**

The philosophy, protocols and practices of safety in the medical and industrial fields; minimisation of hazards associated with radiation, electrical, mechanical and biological techniques.

Course: PH80, SC60
Credit Points: 12 Contact Hours: 4 per week

**■ PHN216 MEDICAL & HEALTH
TECHNOLOGY MANAGEMENT**

The organisational culture and funding structures within the medical and health industry; basic management skills, the interface between health and technology management.

Course: PH80
Credit Points: 6 Contact Hours: 2 per week

■ PHN217 RESEARCH METHODOLOGY

Literature searches – manual and computer based; data collection; recording and analysis; introduction to medical statistics. Writing of research proposals, reports and scientific papers.

Course: PH80
Credit Points: 6 Contact Hours: 2 per week

■ PHN271 PRINCIPLES OF ONCOLOGY

Detailed study of radiation biology; principles of cancer treatment.

Course: PH80
Credit Points: 12 Contact Hours: 4 per week

■ PHN272 BRACHYTHERAPY

Continuation of PHN173 The application of brachytherapy techniques to specific malignant disease sites.

Course: PH80 Prerequisite: PHN173
Corequisites: LSN159, PHN271

Credit Points: 6 Contact Hours: 2 per week

**■ PHN273 ADVANCED COMPUTER
PLANNING**

Continuation of PHN173.

Course: PH80 Prerequisite: PHN173
Corequisites: PHN171, LSN159

Credit Points: 6 Contact Hours: 2 per week

**■ PHN281 MAGNETIC RESONANCE
IMAGING**

Magnetic resonance imaging as applied to medical imaging; the principles, instrumentation and imaging sequencing parameters of MRI; image production, manipulation and storage; clinical MRI applications and techniques.

Course: PH80
Credit Points: 12 Contact Hours: 4 per week

**■ PHN282 DIGITAL SUBTRACTION
ANGIOGRAPHY**

The principles, equipment and techniques used in digital subtraction angiography; use of contrast media; catheterisation techniques and immobilisation methods; specific examinations – cerebral, extra cerebral, cardiac, thoracic, abdominal, peripheral vessels.

Course: PH80
Credit Points: 6 Contact Hours: 2 per week

■ PHN291 MEDICAL DIAGNOSIS

The complementary nature of medical diagnostic techniques; the role, strengths and weaknesses of advanced medical imaging techniques in medical diagnosis.

Course: PH80
Credit Points: 6 Contact Hours: 2 per week

■ PHN297 CLINICAL ATTACHMENT 2

A period of additional supervised clinical practice designed to expand and refine skills acquired in PHN197.

Course: PH80 Prerequisite: PHN197
Credit Points: 12

**■ PHN354 ULTRASONIC EXAMINATIONS OF
THE HEAD, NECK & PERIPHERAL
ORGANS**

Ultrasound techniques used to examine the head, neck and peripheral organs and the ultrasonic appearance of normal and abnormal anatomy and pathology.

Course: PH80 Prerequisite: PHN197
Credit Points: 6 Contact Hours: 2 per week

■ PHN355 CARDIOVASCULAR ULTRASOUND

The principles and equipment requirements of ultrasound applications in the cardiovascular system; the clinical techniques and diagnostic criteria of such applications in particular those of the peripheral arterial and venous systems and the heart.

Course: PH80 Prerequisite: PHN197
Credit Points: 12 Contact Hours: 4 per week

■ PHN397 CLINICAL ATTACHMENT 3

A period of additional supervised clinical practice designed to expand and refine skills acquired in PHN197 and PHN297.

Course: PH80 Prerequisites: PHN197, PHN297
Credit Points: 12

■ PHN520 PROJECT (FT)

The project may take the form of research development, a design, a feasibility study, or the collation of scattered information on a given topic. The project can be undertaken externally under QUT supervision. Time spent on projects is one year for full-time and two years for part-time students.

Course: PH80
Credit Points: 96 (48 FT and 24 PT per semester)
Contact Hours: 18 (FT) and 9 (PT) per week

■ PHN540 PROJECT (PT)

The project may take the form of research development, a design, a feasibility study, or the collation of scattered information on a given topic. The project can be undertaken externally under QUT supervision. Time spent on projects is one year for full-time and two years for part-time students.

Course: PH80

Credit Points: 96 (48 FT and 24 PT per semester)

Contact Hours: 18 (FT) and 9 (PT) per week

■ **PHN715 ADVANCED TOPICS IN PHYSICS 1**

This unit provides a focused theoretical foundation for each student's research program and develops a high level of theoretical understanding of the physical principles underpinning the research.

Course: SC80

Credit Points: 8

■ **PHN716 ADVANCED TOPICS IN PHYSICS 2**

See PHN715

Course: SC80

Credit Points: 12

■ **PHS021 INTRODUCTORY PHYSICS**

Gives students without Senior Physics a basic grounding. Topics include: kinematics, mechanics, electricity and magnetism.

Course: BN10

Credit Points: 6

Contact Hours: 3 per week

■ **PSB010 INTRODUCTORY DESIGN 1**

See ARB140.

Course: BN30

Credit Points: 12

Contact Hours: 6 per week

■ **PSB011 INTRODUCTORY DESIGN 2**

Studio work; simple three-dimensional design tasks at a variety of scales, and illustrating tasks associated with the relevant professions. Workshop and field work related to studio exercises. Techniques of oral and written presentation, report writing, use of English as applicable to the relevant professions.

Course: BN30

Prerequisite: PSB010

Credit Points: 20

Contact Hours: 10 per week

■ **PSB012 PLANNING & LANDSCAPE DESIGN 1**

Site planning and problem-solving theory; studio exercises developing the capacity to analyse the nature and use of spaces and to understand the role of creative expression in design; formal oral presentation techniques (informal and persuasive) including meetings, conferences, interviews and speeches.

Course: BN30

Prerequisites: ARB140 or PSB010, ARB141 or PSB011, PSB050, PSB054, PSB056

Credit Points: 21

Contact Hours: 9 per week

■ **PSB013 PLANNING & LANDSCAPE DESIGN 2**

Site planning techniques. The studio exercises link work commenced in site planning theory and site planning techniques; integrates issues covered in PSB012 with the technical and practical aspects of site planning and design.

Course: BN30

Prerequisites: PSB012, PSB052

Credit Points: 20

Contact Hours: 6 per week

■ **PSB014 PLANNING & LANDSCAPE DESIGN 3**

Confirms the student's appreciation of the coherence of the design process by a single integrated semester-long project. Secondly, the exercise focuses on interdisciplinary skills by undertaking joint work with the architecture students.

Course: BN30

Prerequisites: PSB013, PSB072, PSB058

Credit Points: 20

Contact Hours: 6 per week

■ **PSB015 PLANNING & LANDSCAPE DESIGN 4**

Expansion of students' planning and design skills by increasing the complexity and scale of projects and introducing problems requiring knowledge and skills drawn from the human environment, natural environment and technology study areas. The three projects for the semester focus on the development of a significant urban area.

Course: BN30

Prerequisites: PSB013, PSB072, PSB058

Credit Points: 20

Contact Hours: 6 per week

■ **PSB016 HISTORY OF THE BUILT ENVIRONMENT 1**

The development of the artificial human environment and its relationship to ideas, technology and the fine arts from the earliest times to the seventeenth century.

Course: BN30

Credit Points: 6

Contact Hours: 3 per week

■ **PSB017 HISTORY OF THE BUILT ENVIRONMENT 2**

See ARB241.

Course: BN30

Credit Points: 8

Contact Hours: 3 per week

■ **PSB018 LAND USE GENERATION**

The evolution of Western cities. Order and diversity in the organisation of modern land uses. Values, activities and land uses. Characteristics of major human activities: shelter, work, movement, learning, recreation, exchange. Changing influences on contemporary settlements and emergent settlement forms.

Courses: BN30, PS47

Credit Points: 4

Contact Hours: 2 per week

■ **PSB019 PLANTING DESIGN**

Design characteristics and criteria. Use of plants as structural and design elements within landscape principles to planting design; scale; design for change, growth, replacement and maintenance. Planting design in schemes such as streets, highways, parks, urban forecourts and interior plantscapes, gardens and broad scale regeneration and stabilisation.

Course: BN30

Prerequisite: PSB057

Credit Points: 3

Contact Hours: 1 per week

■ **PSB020 LAND USE POLICIES**

Review of the government structure as applied to urban areas and regions. The levels of urban planning. How urban policies are made. Organisations as policy makers and policy implementors. Areas of conflict and their resolution. The various levels and types of land use planning. Major land uses and activities; work, housing, recreation, transport and welfare.

Courses: BN30, PS47

Prerequisite: PSB018

Credit Points: 4

Contact Hours: 2 per week

■ **PSB021 CONSERVATION THEORY**

Introduction to the concepts of conservation and preservation. The structure of conservation legislation and responsibility in Australia. ICOMOS and the Burra charter. The particular requirements of places, landscapes and precincts in mixed or public ownership. Application of conservation concepts and their use in the National Listings process.

Courses: BN30, PS47

Credit Points: 2

Contact Hours: 1 per week

■ **PSB030 INTRODUCTION TO THE PROFESSIONS**

The concept of professionalism and contemporary social expectations of the environmental design professions. Current issues and controversies in environmental design and planning in Australia. Organisation and activities of the professional institutes. Powers, responsibilities and day-to-day activities of landscape architects and urban and regional planners.

Course: BN30

Credit Points: 3

Contact Hours: 1 per week

■ **PSB032 ISSUES & ETHICS**

Case studies of successful solutions to environmental problems (e.g. Oregon, London, South Australia). Im-

plications of major environmental problems and environmental awareness for urban form and policies. Environmental impacts of technological change. Contrasting attitudes towards conservation of natural, rural and urban environments. Concept of stewardship.

Courses: BN30, PS47

Prerequisites: Completion of years 1 and 2

Credit Points: 2 **Contact Hours:** 1 per week

■ **PSB040 GRAPHIC COMMUNICATION**

A practice-based program with specialised, formal lecture inputs related to the development of methodologies. The program concentrates on the achievement of a professional standard in basic techniques of production documentation.

Course: BN30 **Prerequisites:** COB163, PSB400

Credit Points: 6 **Contact Hours:** 3 per week

■ **PSB041 REPORT PREPARATION**

Formal writing techniques, including reports, instructions, proposals, specifications, correspondence and essays. Report writing. Structure and content of reports. Summaries and subdivision of materials. *Precis*. Use of tables, charts, and illustrations in written presentation. Clarity and the selection of data.

Course: BN30 **Prerequisites:** COB163, PSB400

Credit Points: 2 **Contact Hours:** 1 per week

■ **PSB050 THE HUMAN ENVIRONMENT 1**

See ARB141.

Course: BN30

Credit Points: 4 **Contact Hours:** 2 per week

■ **PSB051 THE HUMAN ENVIRONMENT 2**

Basic research principles, perception, learning processes, motivation and problem solving. Communication, characteristics and dynamics of group and interpersonal interactions. Stress and anxiety management. The role of the self-concept and locus of control in transaction with the world in general.

Course: BN30

Credit Points: 6 **Contact Hours:** 2 per week

■ **PSB052 THE HUMAN ENVIRONMENT 3**

Role of social, cultural, and historical variables in human-environment interactions. Social and cultural development of Australian urban environments. Theory: privacy, personal space, territoriality, environmental meaning and cognition, cognitive maps and wayfinding, intercultural and intracultural differences.

Course: BN30 **Prerequisite:** PSB051

Credit Points: 6 **Contact Hours:** 3 per week

■ **PSB053 THE HUMAN ENVIRONMENT 4**

Directing society; the roles of government and private enterprise; theories of power in society. The Australian example; three tiers of government; Australian constitution; parliamentary democracy. Queensland state administration; role of local government, quangos and statutory authorities; pressure groups and lobby groups and their influence in the built environment arena.

Course: BN30 **Prerequisite:** PSB052

Credit Points: 4 **Contact Hours:** 2 per week

■ **PSB054 ENVIRONMENTAL SCIENCE**

Atmospheric process including climate; air pollution and smog; water cycles. Sea level changes and water pollution as a global issue; carbon, nitrogen and phosphorous cycling. Introduction to human population and demographic trends. Distribution and trade in renewable and non-renewable resources; trends in the use of land; the city as an ecosystem; natural resource management and conservation.

Courses: BN30, IF52, IF54, PS47

Credit Points: 4 **Contact Hours:** 2 per week

■ **PSB056 APPLIED LAND SCIENCE FOR DESIGNERS**

The foundations of a scientific understanding of the earth's surface. Topics include earth science and climatology for environmental design; land forms and their origins; introduction to the physical properties and behaviour of soils and rocks in relation to the design professions.

Course: BN30

Credit Points: 4 **Contact Hours:** 1 per week

■ **PSB057 LANDSCAPE ECOLOGY 1**

Concepts of plant science and ecology which form the basic understanding necessary for design in dynamic biophysical environments; the biological world, at whatever scale of analysis we use – individual, species, population or community – is responsive in its form and function to the influences of the environment in which it lives. Through understanding the processes which regulate the impact of environment, it is possible to interpret patterns in the landscape, and predict change and design form and function.

Course: BN30

Credit Points: 8 **Contact Hours:** 4 per week

■ **PSB058 LANDSCAPE ECOLOGY 2**

The broad division of the earth in relation to climate and soils; the ecosystem concept and its development and application at various geographic scales; concept of community ecophysiology and growth equations; ecological biogeography of Australian vegetation; classification of landscape: concepts of biogeographic regions; landscape structure: patches and corridors and the ideas of matrix and network; analysis of landscape structure and function.

Course: BN30

Credit Points: 8 **Contact Hours:** 3 per week

■ **PSB059 POPULATION & URBAN STUDIES**

Topics include: aspects of urban structure including size/function relationships, concentric zone theory, Hoyt's settlement patterns and problems of rural settlements. The dynamics of urban areas: the relationships and requirements of urban activities (especially residential, work and leisure activities); theories of city form and change; the problems of the CBD; the CBD fringe and the urban/rural fringe. Case studies of Australian settlements.

Courses: BN30, PS47, PS67

Credit Points: 6 **Contact Hours:** 2 per week

■ **PSB060 INTRODUCTION TO ECONOMICS**

Introduction to the basic economic problem of scarcity. Production possibilities are outlined together with various types of economic regimes. A simple macroeconomic circular flow model is introduced. The second part of the unit deals with microeconomic concepts. The market system and associated concepts of demand, supply and price equilibrium.

Courses: BN30, CN32

Credit Points: 2 **Contact Hours:** 1 per week

■ **PSB061 IMPACTS & ASSESSMENT**

Forms of impact assessment and analysis considering ecological, social and economic issues; various statutory systems. An analysis of the ecological processes as a background to assessing impact of human activities: urbanisation, resource exploitation, mining and other forms of landscape change.

Courses: BN30, PS47

Prerequisites: PSB058, PSB059

Credit Points: 5 **Contact Hours:** 2 per week

■ **PSB062 ECONOMICS OF TOWN PLANNING**

This unit is essentially microeconomic; introduces ur-

ban economics and the economic aspects of town planning issues; provides techniques for economic analysis suited to planning needs; illustrates interactions with employment, industry, population and urban studies at the economic interface.

Course: BN30

Credit Points: 5 Contact Hours: 2 per week

■ PSB063 HOUSING & COMMUNITY SERVICES

Population change and households formation. Housing conditions and preference surveys; housing issues and policies. The economics of the building and land development industries. The physical place of educational institutions in communities. Shared use of facilities. Location and space standards. Social and welfare services and their role in the community.

Courses: BN30, PS47

Credit Points: 5 Contact Hours: 2 per week

■ PSB070 MAP & AIR PHOTO INTERPRETATION

Types, sources, uses and availability of maps and air photos, map reading, understanding of contours, land form and use of sections; methods and techniques of map production; introduction to photogrammetry and use of stereoscopes; introduction to remote sensing.

Course: BN30

Credit Points: 2 Contact Hours: 1 per week

■ PSB071 SITE MEASUREMENT

Introduction to basic equipment for site measurement; levels, staffs, chains and tapes, the prismatic compass, optical prism, clinometer, range poles and their use in horizontal and vertical measurement. Introduction to recording of field data and the preparation of measured site drawings from recorded data.

Course: BN30

Credit Points: 4 Contact Hours: 1 per week

■ PSB072 DESIGN SCIENCE

The quantity and quality of light and daylight in buildings; macro and micro climatic conditions; students are given the opportunity to conduct experiments and test models.

Course: BN30

Prerequisites: ARB140, CHB204, PHB144, PSB011, PSB056

Credit Points: 4 Contact Hours: 2 per week

■ PSB073 COMPUTER TECHNIQUES

Development of understanding, awareness, and appreciation of computers as aids in data analysis and presentation, and of basic skills to input, manipulate and analyse output; for statistical analysis of data in decision making; the range of information systems; as a tool in landscape architecture and planning.

Course: BN30 Prerequisites: MAB195, MAB196

Credit Points: 4 Contact Hours: 2 per week

■ PSB074 LAND DEVELOPMENT

The political, economic and physical contexts of land development; environmental services and utilities at the broad scale; the necessary design criteria for these services. Topics include: characteristics of land development projects; structure and operation of approval authorities; design considerations; impacts of electricity and gas systems on the natural environment; transport systems planning.

Course: BN30

Credit Points: 8 Contact Hours: 3 per week

■ PSB077 TRANSPORT PLANNING

Studies include alternative modes of transport; methods for predicting future urban transport patterns; techniques of transport planning and management. Movement and

its alternative modes. The origin and destination approach to traffic management; interchange studies. Inter-urban traffic and regional transport planning. The relationship between land use and traffic generation.

Courses: BN30

Credit Points: 6 Contact Hours: 2 per week

■ PSB078 URBAN LAND DEVELOPMENT

Continuation of PLB456. Land development projects, their financial, marketing and local authority requirements; the housing industry, firm and industry developments and current trends; the requirements of community, public and utility services.

Courses: BN30

Prerequisite: PSB074

Credit Points: 6 Contact Hours: 2 per week

■ PSB190 ELECTIVE UNIT (PLANNING)

Any approved unit selected from the undergraduate programs of the Faculty of Built Environment and Engineering, normally one of the landscape architecture courses. In special circumstances the elective unit may be selected from courses offered by QUT's other Faculties or by another approved university.

Course: BN30

Prerequisites: Completion of years 1 and 2

Credit Points: 3 Contact Hours: 2 per week

■ PSB244 LANDSCAPE GRAPHICS

Combined application of freehand, drafting and colour techniques. The selection of colour, theme and emphasis in graphic packages. Realism, abstraction and symbolism in landscape communication. Monochromatic graphics for simple reproduction. Integration of various graphic techniques and media. Efficient processes for production and reproduction.

Course: BN30

Credit Points: 6 Contact Hours: 2 per week

■ PSB275 LANDSCAPE CONSTRUCTION 1

Materials and methods of construction; skills in detailing and preparation of documents. Topics include: the common building materials; foundation soils; site stormwater drainage, water and electrical services; applied systems, including paving, etc.

Course: BN30

Prerequisite: PSB071

Credit Points: 6 Contact Hours: 3 per week

■ PSB276 LANDSCAPE CONSTRUCTION 2

Management and cost of resources and materials for professional services, production of documents and implementation of projects. Techniques of land surface manipulation including construction of platforms for building, carparks, sports ovals, etc. and associated provision of surface drainage. Lectures are accompanied by skill development exercises in a grading workbook concluding with the preparation of two set grading plans.

Course: BN30

Prerequisite: PSB071

Credit Points: 4 Contact Hours: 2 per week

■ PSB280 ELECTIVE UNIT (LANDSCAPE ARCHITECTURE)

Final-year students are required to undertake a minimum of two hours of elective units. The elective unit may be taken in either semester or spread across both semesters depending on unit choice.

Course: BN30

Prerequisite: Completion of years 1 and 2

Credit Points: 4 Contact Hours: 2 per week

■ PSB303 ANALYSIS OF SPATIAL MEASUREMENT 1

Surveying measurements and their assessment, propagation of variances, pre-analysis of survey tasks, least squares adjustment methods for various functional and stochastic models.

Courses: IF52, IF54, PS47

Credit Points: 6 Contact Hours: 3 per week

■ PSB304 ANALYSIS OF SPATIAL MEASUREMENT 2

Generalised Least Squares, linearised observation equations approach to more extensive horizontal and 3-D networks including GPS data; reliability of solutions and design of networks; detection and treatment of systematic and gross errors.

Courses: IF54, PS47

Credit Points: 6

Contact Hours: 3 per week

■ PSB306 CARTOGRAPHY 1

Freehand drawing: field sketching; base materials: drawing instruments for survey drafting; 3-D representation: relief shading, contour interpolation; precision plotting; earth's coordinate system; construction of map projections, both manual and computer assisted; the cadastre: an introduction to its history and implications for society if the cadastre is not maintained; specifications for cadastral plan preparation: cadastral plan registering authorities' requirements, simple subdivision plans; plan reproduction techniques: electrostatic diazo.

Courses: IF54, PS47

Credit Points: 8

Contact Hours: 3 per week

■ PSB307 CARTOGRAPHY 2

Preparation of cadastral plans for survey actions over multiple amalgamations; building units and group titles; background tenures, mining tenures; detail survey plans: long and cross sections for engineering projects; digital data acquisition: types of digitisers and scanners; raster/vector conversions; digitising techniques; scanning problems; output devices; printers, plotters, scanner plotters, image setters.

Courses: IF52, IF54, PS47

Prerequisite: PSB306 **Corequisites:** PSB315, PSB327

Credit Points: 8

Contact Hours: 3 per week

■ PSB308 CARTOGRAPHY 3

Reprographics: graphic arts photography; film characteristics; emulsion properties; printing methods: offset lithography; gravure letterpress; requirements of originals; type and typesetting layout design; paper technology: ink technology, colour separation techniques and procedures for map production; halftone photography for relief shading; desktop publishing: software capability and limitations.

Courses: IF52, IF54, PS47, SV34

Prerequisite: PSB307

Credit Points: 8

Contact Hours: 3 per week

■ PSB309 CARTOGRAPHY 4

Map design: map compilation, generalisation; compilation methods; data sources and evaluation; map design elements: composition; organisation; visual hierarchy; gestalt theory: thematic mapping; qualitative and quantitative pre-processing of spatial data; statistical methods; data classification; dot map; choropleth map isarithmic mapping cartograms; colour and visual perception; colour systems; Munsell, Ostwald, CIE, colour in cartographic design.

Courses: IF54, PS47 **Prerequisites:** PSB308, PSB342

Credit Points: 8

Contact Hours: 3 per week

■ PSB310 GEODESY 1

Fundamentals of potential theory; the La Place operator and La Place equation; outline of spherical harmonics; the earth's gravity field, potential of the earth in spherical harmonics. Geometric and physical of lower degree harmonics; meaning geopotential surfaces, geoid, undulations, deflection of vertical, level surfaces, normal, orthomorphic, dynamic heights; heighting systems and AHD; satellite geodesy, perturbed and unperturbed satellite motions; orbital elements; determination of orbits; satellite ephemerides; orbital characteristics for communication, remote sensing and position fixing satellites; the

GPS system, configuration, availability, reliability, ephemerides, error sources and error budgets; GPS receivers and software; GPS applications in point positioning, differential and kinematic mode; non-geodetic applications.

Courses: IF54, PS47

Prerequisites: PHB172, MEB221, PSB327, MAB498

Corequisites: PSB346, PSB329

Credit Points: 6

Contact Hours: 3 per week

■ PSB311 GEODESY 2

Further work on spherical and ellipsoidal harmonics; Gauss's and Green's formulae, Legendre's functions, Stokes' formula; determination of geoid and best fitting spheroids; satellite datum, transformation to geodetic datum; local and geocentric geodetic datum, mutual transformations; geodetic and satellite time systems; variations in gravity, gravity measurement, gravity and height anomalies; ocean and earth tides; other geodetic space techniques; VLB1, LLR, INS, Doppler; the incorporation of these data sets into classical terrestrial data sets; geophysical aspects of geodesy; rotation of the earth, length of day, polar motion, UT1 and UT2; work of the International Earth Rotation Service; the Conventional Terrestrial System.

Course: PS47

Prerequisite: PSB310

Credit Points: 6

Contact Hours: 3 per week

■ PSB315 LAND ADMINISTRATION 1

Introduction to the nature of politics, political concepts and culture, and public policy; constitutional development in terms of its English origins, evolution of colonial self-government, federalism and the Australian Constitution with particular reference to the effects on laws relating to land; the roles of parliament, executive government, the judiciary, the public service, local government; the exercise of political influence through pressure groups, political parties, the mass media, and issues of freedom of information; the purpose and aims of resource policy and the role of property rights in resource management.

Courses: IF54, PS47, SV34

Credit Points: 6

Contact Hours: 3 per week

■ PSB316 LAND ADMINISTRATION 2

An historical study of the development of land policy in Australia, highlighting the conflicts that have arisen from differing philosophies of land use and ownership; introduction to the elements of the law; the sources of the law, legal systems, the judicial hierarchy, rules of precedents, law reports, where to find the law; the basic principles and objectives of the Torrens system of land titling; concepts of government guarantee and indefeasibility; concepts of Estate, Tenure, Interests; the operation of the Torrens system in Queensland; Certificates of Title, easements, caveats, mortgages, dealings, transfers, lease, etc.

Courses: IF54, PS47

Credit Points: 8

Contact Hours: 3 per week

■ PSB317 LAND ADMINISTRATION 3

The legal aspects of reinstatement of boundaries; case law associated with reinstatement; statutory requirements which relate to the zoning and development of land; land and surveying requirements of the following Acts: The Dividing Fences Act, The Land Sales Act, The Soil Conservation Act, The Water Resources Act, The Beach Protection Act, The Integrated Resort Development Act, The Acquisition of Land Act, The Harbours Act, The Canals Act, etc.

Courses: IF54, PS47

Prerequisite: PSB316

Credit Points: 8

Contact Hours: 3 per week

■ PSB318 LAND ADMINISTRATION 4

An introduction to rural and urban sociology; defining sociology, the ecological approach, urban social structure,

social patterns in urban society, deviance and urban living, rural social patterns and problems. Social aspects of land administration, the impact of industrialisation land urbanisation on rural societies, the country/city dichotomy; social problems of new town and large scale suburban subdivision and urban redevelopment.

Course: PS47 **Prerequisites:** PSB319, PSB323
Credit Points: 6 **Contact Hours:** 3 per week

■ **PSB319 LAND ADMINISTRATION 5**

The role of organisation, learning as a function of time, tendencies towards specialisation, the concept of synergy, problems of coordinating activities, the organisation of information and the significance of rule governed behaviour; economic, psychological, administrative, political and sociological perspectives on organisation; systems and cybernetic approaches to organisation; the individual as a system, social systems, and adaptive systems; applications in personal psychology and development, the business firm, professional and industry organisations, government and social controls, legal institutions and public policy, land information systems.

Course: PS47
Prerequisites: PSB315, PSB318, PSB323, PSB318
Credit Points: 6 **Contact Hours:** 3 per week

■ **PSB320 LAND DEVELOPMENT PRACTICE 1**

The history of land development, especially urban land development, in Australia and in Queensland. The effects of technology and social attitudes on urban land development; sustainable land development; the physical, economic and social determinants of land use; land development as an economic activity; economic and social benefits of land development controls; site analysis and assessment; opportunities and constraints, sieve mapping, GIS application; the site in its broader context; spatial models; models for levels of activity and location of activities, optimising models.

Courses: PS47
Prerequisites: MAB498, PSB054, PSB324, PSB342
Corequisites: CEB464, PSB317
Credit Points: 8 **Contact Hours:** 3 per week

■ **PSB321 LAND DEVELOPMENT PRACTICE 2**

Elements of traffic planning, road capacities, road hierarchies; geometric layout of rural and urban roads; storm water and sewerage drainage for urban subdivisions; subdivision design; lot geometry and orientation, road hierarchies and access; open space systems, radburn; provision and location of services; detailed treatment of development controls affecting subdivisions – negotiations, applications, appeals; preparations for Court, precedents.

Course: PS47
Prerequisites: CEB464, PSB317, PSB317, PSB318
PSB320
Corequisite: CEB564
Credit Points: 8 **Contact Hours:** 3 per week

■ **PSB322 LAND DEVELOPMENT PRACTICE 3**

Further work on conventional and innovative subdivision design, integration of road and lot design with engineering works, especially drainage; subdivision designs and procedures for canal estates, industrial estates, group title, building units and other strata titles; costing and cash flow analysis for subdivision projects; feasibility studies, designing to a budget; preparation of a complete application for a local authority approval.

Course: PS47
Prerequisites: CEB564, PSB321, PSB324
Credit Points: 16 **Contact Hours:** 6 per week

■ **PSB323 LAND STUDIES 1**

Introduction to the nature and scope of economics as a discipline; analysis of factors affecting supply and demand for goods and services; market structure, market

failure and rationale for government intervention into the operation of markets; land and natural resources, conservation and the environment, and the role of property rights and obligations; problems of industry location and spatial aspects of economics; consideration of economic efficiency, productivity, technological change and economic growth.

Course: PS47
Credit Points: 6 **Contact Hours:** 3 per week

■ **PSB324 LAND STUDIES 2**

Concepts of value, purposes of valuation: general and statutory definitions; general principles of valuation: methods of valuation, preparation and presentation of valuation reports; valuation of improvements to land; valuation methods and techniques applicable to the valuation of residential, retail, commercial and industrial property; valuation of other rights in land, easements, licences, life interests, reversions, remainders and fractional interests; strata title; effect of statutory town planning schemes on land valuation; land valuation and land administration: legislation affecting land valuation practice including the Valuation of Land Acts, Valuers Registration Act, Auctioneer's Commission Agents Act, Sale of Land Act; Law reports on valuation cases; reports of recent Royal Commissions and Committees of Inquiry dealing with land valuation; duties and liabilities of a valuer.

Courses: IF54, PS47
Prerequisites: PSB316, PSB323, PSB328
Credit Points: 6 **Contact Hours:** 3 per week

■ **PSB325 LAND SURVEYING 1**

General introduction to the profession and to position fixing methods ('absolute' and relative). Elementary treatment of errors – systematic and random; accuracy and precision. Working from 'whole to part'; horizontal and vertical control, PSMs, level datum(s), BMs, MSL, AHD. Types and purposes of surveys; tapes and chains, formulae (sans derivations) for slope, temperature, sag and tension correction; chaining techniques; simple trigonometric and differential heighting; introductory principles and use of EDM; calculations; close and Bowditch adjustment; areas and volumes. Introduction to mapping; map numbering system used in Queensland; interpretation of cadastral and topographical maps; elementary aerial photography; simple geometry and stereoscopic measurement; interpretation and orientation in maps and field positions; outline of GPS and GIS technologies – opportunities and pitfalls.

Courses: IF54, PS47
Credit Points: 8 **Contact Hours:** 3 per week

■ **PSB326 LAND SURVEYING 2**

Calculations; missing element closes; horizontal curves (simple, compound, reverse); cutting off areas; 'Horner type' plane calculations; earth work estimation; errors; further work on random errors, measures of precision, errors and residuals; simple propagations; theory, tests and adjustments of optical theodolites; tachometry, ODM, test and adjustments of tilting and automatic levels; reciprocal and precision levelling. Theory and practice of electronic theodolites and total stations; (Note: this requires coordination with Physics). Traversing and further non-Least Square adjustments; investigation and detail surveys. Longitude and cross-sections; theory and practice of barometric and hydrostatic levelling. Further work on contours and contouring.

Courses: IF54, PS47
Prerequisites: PSB325 **Corequisites:** PHB172
Credit Points: 8 **Contact Hours:** 3 per week

■ **PSB327 LAND SURVEYING 3**

Position fixing and resection; contour and detail surveys, specifications, performance and assessment of DTMs;

horizontal and vertical alignment for route surveys; areas, volumes and earthworks. Field astronomy theory.
Courses: IF52, IF54, PS47
Credit Points: 10 **Contact Hours:** 3 per week

■ PSB328 LAND SURVEYING 4

Land Title Systems, Reinstatement; an explanation of the options of land title systems, with particular reference to Customary Land Tenure, Private Deeds registration, Public Deeds Registration, and Registration of Title; an analysis of the literature and case law relevant to the reinstatement of property boundaries as applicable to Queensland; an analysis of legislation, subordinate legislation and case law that impinges on the reinstatement process; a comparative rendering of spatial relationships. Field survey to reinstate the boundaries of a section in the Brisbane Metropolitan area.

Courses: IF52, IF54, PS47

Prerequisites: PSB316, PSB325 **Corequisite:** PSB317
Credit Points: 8 **Contact Hours:** 3 per week

■ PSB329 LAND SURVEYING 5

Reconnaissance for geodetic surveys; geodetic observations techniques and reduction of observations. The three classical methods of geodetic surveying, triangulation, trilateration and traversing. Precise levelling including the Princeton Test; satellite surveying using GPS technology; the undertaking of a geodetic survey in accordance with Surveyors Board requirements for Registration as a Surveyor.

Courses: IF54, PS47

Prerequisites: PSB327
Credit Points: 8 **Contact Hours:** 3 per week

■ PSB330 LAND SURVEYING 6

Field surveys for DTMs, as-constructed surveys, associated specifications and standards; more complex setting out, control and monitoring for structures; mining surveying for surface and below surface mining activities; hydrographic surveying for exploration and port management.

Courses: IF54, PS47

Credit Points: 8 **Contact Hours:** 3 per week

■ PSB331 LAND SURVEYING 7

The need for control in the use of resources; property rights as a method of resource control. Creating and maintaining knowledge of property rights; including issues concerned with parcel identifiers, land tenure, land boundaries, land subdivision, land registration, changing rights through statutory changes, attitudes and responses of the public; evidence of property rights, evolution from customary land tenures to land registration systems; factors leading to breakdown of systems. Effects of technological change on land use, evolving property rights and obligations, and on information technology on land use controls; the Mabo case.

Course: PS47

Credit Points: 8 **Contact Hours:** 3 per week

■ PSB332 LAND SURVEYING 8

Procedures of the various departments including but not confined to the Department of Lands, Resources Industries; plan registration, road closure, resumption surveys, conversion of mining tenure to freehold, conversion of pastoral tenures to freehold, excision for and of reserves of various kinds. The undertaking of a cadastral survey of moderate complexity in accordance with Surveyors' Board's requirements for registration as a surveyor.

Course: PS47

Prerequisite: PSB328
Credit Points: 8 **Contact Hours:** 3 per week

■ PSB333 MAP PROJECTIONS

Mapping terms and definitions; the mapping problem. Distortion, linear, angular and areal. Tissot's Indicatrix Ellipses. Scale, scale in particular directions. Conditions

for orthogonality, conformality, equivalence and equidistance. Selection of suitable projections; spherical projections. Principles for deriving projections on tangent and secant plane, conic and cylindrical surfaces in skew, normal or transverse aspects. The use of skew graticules; spheroidal projection. The polar stereographic, Lambert's polar conformal, Mercator and Transverse Mercator projections. The UTM system. Computations on the AMG. Line scale factor and $(t - T)$ for short and long lines. Mutual transformation of polar and AMG coordinates.

Courses: IF54, PS47

Prerequisite: MAB497

Corequisites: PSB306, PSB346

Credit Points: 8 **Contact Hours:** 3 per week

■ PSB334 PHOTOGRAMMETRY 1

Foundations of photogrammetry: history, products, applications; elements of photogrammetric optics: lenses and filters; aerial cameras: aerial photography; factors affecting the photographic mission; acquisition of photography. Photographic materials and processing: photographic materials and their properties; the aerial photographic image; planning and executing the photogrammetric project. Field surveys for photogrammetry; introduction to basic mathematics of photogrammetry; geometry and use of a stereo model. Introduction to remote sensing: propagation of electromagnetic waves; general description of sensors; processing of image grey levels; classification; mapping with space borne imagery.

Courses: IF52, IF54, PS47

Credit Points: 6 **Contact Hours:** 3 per week

■ PSB335 PHOTOGRAMMETRY 2

Basic mathematics of photogrammetry: coordinate systems; elements of interior and exterior orientation; image forming equations of the central projection; fundamental rotation matrices. Space resection of a single photograph; formation of a stereo model: on a stereoplotter; numerically; aerotriangulation: introduction; historical development; methods; instrumentation. Block triangulation with independent models: three-dimensional transformation of unit models; separation of planimetric and height computations; corrections for image errors and instrumental errors: image deformation; physical effects; accuracy of block adjustment: planimetry; height.

Courses: IF52, IF54, PS47

Prerequisites: MAB497, MAB498, PSB334

Prerequisites: MAB497, MAB498, PSB334

Co-requisites: PSB304, MAB795

Credit Points: 8 **Contact Hours:** 3 per week

■ PSB336 PHOTOGRAMMETRY 3

Principles of plotting with a Stereoplotter: analogue plotters; analytical plotters. Rectification of photographs: perspective relationship between planes; differential rectification of photographs (orthophotos); data acquisition: digital elevation model; acquisition of height points; accuracy assessment; close range photogrammetry: introduction; overview; applications. Digital mapping and its relationship to geographic information systems and remote sensing: general process; attribute encoding of cartographic information; geographic information systems.

Courses: IF54, PS47

Prerequisites: MAB497, MAB498, PSB303, PSB334,

PSB335

Credit Points: 8 **Contact Hours:** 3 per week

■ PSB337 PHOTOGRAMMETRY 4

Introduction to digital photogrammetry: digital photogrammetry; digital image fundamentals; all digital photogrammetry and remote sensing; image sam-

pling and resampling; digital image correlation: theory of digital correlation; computational methods in digital correlation; some strategies of computation in correlation; correlation by least squares; multi-point and feature-based matching. Digital geometric processing of images: projective transformation equations; effect of terrain undulations; digital differential rectification; processing of image grey levels: image transformation; image enhancement; image restoration.

Course: PS47
Prerequisites: MAB498, MAB795, PSB303, PSB304, PSB335, PSB336
Credit Points: 6 **Contact Hours:** 3 per week

■ **PSB338 PROFESSIONAL PRACTICE**

Definitions and characteristics of a profession: principles of ethical behaviour, codes of ethics, the Code of Ethics of ISA; professionalism and statutory regulations; current issues in professionalism; professional organisations; professional heritage. The surveyor and statutory authorities. The Surveyors' Board, its purpose, powers, and functions; registration of surveyors. Business planning: market research and analysis, types of business structure, feasibility studies, cost-benefit analysis, financial requirements, business requirements: equipment insurance, staff recruitment, etc. Legal aspects of practice; contact; torts; business organisations: sole trader, partnership, company, joint venture, association and trusts, business names.

Courses: IF54, PS47
Prerequisites: COB163, PSB317 and completion of at least 240 course credit points
Credit Points: 6 **Contact Hours:** 3 per week

■ **PSB339 PROJECT**

Each student is to research and report on a topic germane to surveying and mapping that will demonstrate a capacity to satisfy the objectives of this subject. A 20-25 minute seminar is given by each student in both semesters on the topic of the project, or other approved subject.

Course: PS47
Prerequisites: BNB001 plus completion of not less than 240 course credit points
Credit Points: 16 **Contact Hours:** 3 per week

■ **PSB340 REMOTE SENSING 1**

History and principles of remote sensing: introduction; definitions; principles; electromagnetic radiation: introduction; the electromagnetic spectrum; interaction with the atmosphere; interaction with surfaces; types of imagery; image interpretation: elements of image interpretation; image interpretation strategies; preparation for interpretation; satellite systems: history; current platforms. Image resolution: target variables; system variables; operating conditions; elementary image classification: informational classes and spectral classes; unsupervised classification; supervised classification; other classifications; applications in the earth sciences; land use and land cover remote sensing and geographic information systems.

Courses: IF54, PS47
Credit Points: 6 **Contact Hours:** 3 per week

■ **PSB341 REMOTE SENSING 2**

Review of aspects from PSB340; image interpretation: activities of image interpretation; elements of image interpretation; techniques of image interpretation; visual requirements of image interpretation; image processing and image classification; cartographic presentation of remote sensing data: fundamentals of cartographic presentation; approaches to cartographic presentation; rectification; applications environment; terrain and minerals: assessment and evaluation. Forest lands: inventory

and assessment; water resources assessment; the marine environment. Weather and climate: measurement and analysis; crops and soils; urban environments: inventory and analysis; regional analysis.

Course: PS47 **Prerequisite:** PSB340
Credit Points: 8 **Contact Hours:** 3 per week

■ **PSB342 SPATIAL INFORMATION SCIENCE 1**

Introduction: what is spatial information science; maps and map analysis; raster SIS; vector SIS; digital elevation models; spatial data bases: spatial objects and data base models; relationships among spatial objects; data base concepts; data acquisition: sampling; data input; coordinate systems; map projections; transformations; georeferencing; Using spatial information systems: spatial analysis; output; graphic output design issues; modes of user/SIS interaction.

Courses: IF54, PS47
Credit Points: 8 **Contact Hours:** 3 per week

■ **PSB343 SPATIAL INFORMATION SCIENCE 2**

Coordinate systems and geocoding: common coordinate systems; map projections; transformations. Vector data structures and algorithms: storage of complex spatial objects; storage of lines; algorithms; polygon overlay operation; raster data structures and algorithms: raster storage; hierarchical data structures; quadtree algorithms and spatial indices; data structure and algorithms for surfaces, volumes and time: digital elevation models; spatial interpolation; temporal and 3-D data bases; data bases for spatial information systems; concepts; error modelling and data uncertainty: accuracy of spatial data bases; managing errors; line generalisation; visualisation: visualisation of spatial data; colour theory.

Course: IF54, PS47
Prerequisites: PSB306, PSB326, PSB334, PSB342
Credit Points: 8 **Contact Hours:** 3 per week

■ **PSB344 SPATIAL INFORMATION SCIENCE 3**

Spatial information science application areas: application areas; resource management; urban and rural planning; cadastral administration; facilities management; system planning: system planning overview; functional requirements analysis; system evaluation; benchmarking; system implementation: database creation; implementation issues; implementation strategies; other aspects: standards; legal issues; knowledge based techniques.

Course: IF54, PS47 **Prerequisite:** PSB343
Credit Points: 8 **Contact Hours:** 3 per week

■ **PSB345 SPATIAL INFORMATION SCIENCE 4**

Spatial information application area; decision making in spatial information systems; spatial information planning: system planning; system building; system evaluation; costs and benefits.

Course: IF54, PS47 **Prerequisite:** PSB344
Credit Points: 8 **Contact Hours:** 3 per week

■ **PSB346 SPHEROIDAL COMPUTATIONS**

Properties of the meridian ellipse. Radii of curvature, meridian arc. Spheroid as a geodetic reference surface, latitude, longitude, geoid separation and ellipsoidal height. Mutual conversion of geodetic and cartesian coordinates. Seven parameter coordinate transformations; least squares parameter estimation; Point-to-point computation on the spheroid, Robbin's long line and simplified formulae. Approximate methods; setting out parallels and meridians.

Course: IF54, PS47 **Prerequisites:** MAB497, PSB303
Credit Points: 6 **Contact Hours:** 3 per week

■ **PSB347 TOPICS IN ENGINEERING SURVEYING**

Deformation surveys, design and analysis for structures and subsidence. Large scale metrology, measurement

methods and geometric shape fitting; tunnelling surveys; high rise buildings.

Courses: PS47, SV34

Credit Points: 6 **Contact Hours:** 3 per week

■ **PSB348 SEMINAR**

Introduction to surveying, and the role of professional surveyors in society; the education and training process required for professional recognition; verbal and written communication; preparation of technical papers and reports in surveying and mapping; business correspondence; group work and study.

Courses: PS47, PS48

Credit Points: 8 **Contact Hours:** 3 per week

■ **PSB902 URBAN PLANNING 1**

Building upon preliminary economic knowledge, urban growth theory and constraints are outlined. Population and employment changes and their effect on employment, industry and residential location are identified together with relevant definition and analytical techniques. Introduction to economic base studies, activity rates and use of multipliers. The urban labour market, unemployment and labour supply are outlined. Theory and methods of industry location are developed: types and needs of industry, retailing, retail hierarchies; office activities, office location; shopping centres; and office, industrial and corporate parks. The role of government and the impact of the post-industrial society are considered.

Courses: CN32, PS47

Credit Points: 4 **Contact Hours:** 2 per week

■ **PSB903 URBAN PLANNING 2**

Principles and practice of planning. Introduction: background to emergence of planning in Queensland. Types of planning: development planning; development control; strategic planning. Detailed coverage of the current development approval process including Local Government (Planning and Environment) Act 1990. Conservation and heritage protection.

Courses: BN30, CN32

Credit Points: 4 **Contact Hours:** 2 per week

■ **PSB904 SURVEYING & MEASURING**

Basic concepts, applications of surveying, relationship with architecture and building; instrumentation; setting out of procedures, plotting survey data, computations, cadastral systems, land tenure systems; Titles Office procedures, searching, identification, types of surveys, easements, encroachments, interpretation of survey plans.

Courses: CN31, CN32, CN33, PU42

Credit Points: 4 **Contact Hours:** 2 per week

■ **PSB905 PROJECT SURVEY**

Two surveys of a building site; chain survey with reduced levels taken on a grid; survey done by theodolite traverse.

Course: CN31

Prerequisite: PSB904

Credit Points: 4 **Contact Hours:** 2 per week

■ **PSB907 SURVEYING**

Introductory surveying methods, instrumentation; use of level and theodolite for gathering and setting out data points, distance measurement, circular curves, areas of volumes; introductory photogrammetry and digital terrain models.

Course: CE42

Credit Points: 8 **Contact Hours:** 3 per week

■ **PSB910 CONSTRUCTION SURVEYING**

Concepts of surveying and measuring, revision of trigonometry functions. Levels and levelling, reading and recording observations, 2-peg test. Linear measurement, correction to measurements. The theodolite, angles and bearings, traverses and traverse calculations. Setting out,

contours and volumes. Maps. Cadastre. The practical sessions include levelling, measurement, traversing, setting out and use of construction instruments, checking verticality, etc.

Courses: CN41, CN43

Credit Points: 8 **Contact Hours:** 4 per week

■ **PSN002 CONCENTRATION STUDIES A**

Students, in conjunction with and with the approval of the Course Coordinator, elect studies to improve basic knowledge in identified areas of deficiency. Such study may be either in defined units offered outside the major or a specified reading/research program under tutorial guidance.

Courses: BN73, PS69

Credit Points: 4 **Contact Hours:** 1 per week

■ **PSN003 CONCENTRATION STUDIES B**

Each student undertakes approved study to develop more specialised knowledge and skills related to their specific focus of study or dissertation topic. Study may be taken within the student's own major through specialist studies offered by staff in their areas of expertise or from other advanced studies in the University.

Courses: BN73, PS69

Credit Points: 8 **Contact Hours:** 2 per week

■ **PSN004 APPLIED RESEARCH TECHNIQUES**

Research techniques, including surveys of various types, statistical analysis, remote sensing and others.

Courses: BN73, PS69

Credit Points: 4 **Contact Hours:** 1 per week

■ **PSN099 DISSERTATION**

Provides the opportunity to pursue in depth and with innovation an issue or problem within the chosen focus of study. This may be achieved through emphasis on either design or process. The balance between theory and design application may vary; however, a dissertation which focuses on a specific design must be supported by a theoretical basis and analysis sufficient to define the problem and to explain how the design satisfies the conditions for a solution. Conversely, a dissertation which focuses on the development of a theory must illustrate the practical implications of the theory for the relevant classes of design.

Course: BN73

Credit Points: 24

■ **PSN111 COMPARATIVE PLANNING THEORY**

Roles of planners: statutory, pluralist, advocate, consultants; models of planning at different scales and in different contexts: national, regional and local; planning under different economic and social conditions: free market, centrally planned, indicative, directive, interventionist, participatory. Current metropolitan and regional planning issues in Australia.

Courses: IF64, BN73

Credit Points: 6 **Contact Hours:** 2 per week

■ **PSN114 METROPOLITAN PLANNING PRACTICE & LAW**

Growth and changes in metropolitan areas with particular reference to Australia; urban sprawl or urban consolidation; the future of metropolitan Brisbane; the current planning and legislative framework; suggestions for reform; group project on an aspect of metropolitan planning, normally in Brisbane.

Courses: BN73, IF64

Credit Points: 12 **Contact Hours:** 3 per week

■ **PSN123 PLANNING IN DEVELOPING COUNTRIES**

The concept of the Third World: characteristics and setting; theories of national development relevant to the Third World; the roles of international agencies, gov-

ernments, expatriate urban and regional planners, local expertise and the international community; the problems of rapid social and cultural change; the role of nationalism. Urban issues: rapid urbanisation, dual economies, the provision of shelter, squatters, social and physical infrastructure. Rural issues: definitions and theories of development; rural development schemes and case studies: capital land and labour intensive schemes; economic transformations; the future of urban-rural relations in developing countries.

Courses: BN73, IF64

Credit Points: 6 **Contact Hours:** 2 per week

■ **PSN125 HOUSING POLICY & HOUSING PROBLEMS: AN INTERNATIONAL PERSPECTIVE**

Seminar course focusing on the various social and economic contexts within which housing systems operate through a comparative transnational perspective of housing problems and the range and effectiveness of policies. The economic institutions, social goals, policy processes and actual outcomes of programs. The distribution of housing, the role of the market and the degree of intervention by public sector agencies. Case studies from free market environments, such as the USA; more regulated markets, such as those of Western Europe; and the rapidly changing circumstances of Eastern Europe.

Course: IF64

Credit Points: 12 **Contact Hours:** 3 per week

■ **PSN126 THE AUSTRALIAN HOUSING SYSTEM & POLICIES**

Demographic, social and economic trends impacting housing markets in Australia, the evolution of post-World War II government housing policies, including public/social housing programs of states, the Commonwealth states Housing Agreement, and the community and local government programs. Access to affordable housing. Housing finance and subsidy schemes for home ownership, private rental and public housing. Housing management issues for public sector housing agencies and community housing schemes.

Course: IF64

Credit Points: 12 **Contact Hours:** 3 per week

■ **PSN201 MASTERS STUDIO**

Students select a specific studio related to the proposed focus of study. Studios are organised on a thematic rather than a purely disciplinary basis and projects will involve members of several disciplines in schemes of varying scales. Advanced problem solving and interactive skills are required. Emphasis is placed on coordinated and managed group activity and resulting high levels of team output are expected. Professional aspects of project activities are supported by input on advanced aspects and concepts.

Course: IF64

Credit Points: 12 **Contact Hours:** 3 per week

■ **PSN202 ADVANCED PRACTICE 1**

Presumes prerequisite understanding of practice relationships and processes. Emphasis is on the establishment and development of new markets and appropriate methodologies.

Course: BN73

Credit Points: 4 **Contact Hours:** 1 per week

■ **PSN203 ADVANCED PRACTICE 2**

See PSN202.

Course: BN73

Credit Points: 8 **Contact Hours:** 2 per week

■ **PSN204 PRACTICE SEMINAR**

Students are required to prepare and present a formal seminar on a professional topical subject and to partici-

pate in those presented by fellow students.

Course: BN73

Credit Points: 4 **Contact Hours:** 1 per week

■ **PSN205 PROFESSIONAL SEMINARS**

This unit provides a forum for interdisciplinary discussion. Local and visiting speakers contribute specialist expertise and knowledge of specific issues or projects related to the work and interests of the contributing majors.

Course: BN73

Credit Points: 8 **Contact Hours:** 2 per week

■ **PSN206 RESEARCH METHOD**

Students are introduced to issues related to the purpose, organisation and conduct of research and to a range of appropriate techniques for the collection and analysis of information relating to their dissertation topics. The current state of research and publication in the profession is highlighted.

Course: BN73

Credit Points: 4 **Contact Hours:** 1 per week

■ **PSN207 PREPARATORY SPECIALISATION 1**

This unit will assist the student to explore their elected research area in greater breadth to assist the definition of the specialisation which will be developed in depth in the Specialisation and Research Project units; students will undertake study to develop a broad understanding of knowledge and skills related to the specific concentration and supporting the direction of the proposed Research Project topic. Study may be taken from professional level studies offered by the School, or units within the University or, where appropriate, through another university or through specialist studies offered by staff.

Course: PS71

Credit Points: 12 **Contact Hours:** 3 per week

■ **PSN208 PREPARATORY SPECIALISATION 2**

This unit will assist the student to explore their elected research area in greater breadth to assist the definition of the specialisation which will be developed in depth in the Specialisation and Research Project Units; students will undertake study to develop a broad understanding of knowledge and skills related to the specific concentration and supporting the direction of the proposed Research Project topic. Study may be taken from professional level studies offered by the School, or units within the University or, where appropriate, through another university or through specialist studies offered by staff.

Course: PS71

Credit Points: 12 **Contact Hours:** 3 per week

■ **PSN209 PREPARATORY ELECTIVES 1**

This unit allows development of understanding of the breadth of issues related to the elected specialisation; students will elect unit/s from within professional level studies offered by the School, or the University or, where appropriate, from other universities and approved by the Head of School on the recommendation of the student's supervisor and which will give breadth within the student's specialisation.

Course: PS71

Credit Points: 12 **Contact Hours:** 3 per week

■ **PSN210 PREPARATORY ELECTIVES 2**

This unit allows development of understanding of the breadth of issues related to the elected specialisation; students will elect unit/s from within professional level studies offered by the School, or the University or, where appropriate, from other universities and approved by the Head of School on the recommendation of the student's supervisor and which will give breadth within the student's specialisation.

Course: PS71
Credit Points: 12 **Contact Hours:** 3 per week

■ **PSN211 RESEARCH PROJECT 1**

This unit ensures the understanding and demonstration of relevant research skills and their effective application in a project of genuine substance and significance. Each student will undertake a Research Project in one of the elected specialisations: Landscape Design, Landscape Planning, Landscape Theory, Landscape Practice, Landscape Management. Each student will be assigned to a supervisor approved by the Course Coordinator. In general, the supervisor will provide guidance on the selection of topic, investigation and research, and preparation of the proposals and submission. Research Project 1 will incorporate advanced Information Retrieval Skills. The output will be a proposal for the specific Research Project which outlines the relevant base theory, and clearly communicates the potential extent of the Research Project.

Courses: PS70, PS71
Credit Points: 12 **Contact Hours:** 3 per week

■ **PSN212 RESEARCH PROJECT 2**

This unit ensures the understanding and demonstration of relevant research skills and their effective application in a project of genuine substance and significance. Each student will undertake a Research Project in one of the elected specialisations: Landscape Design, Landscape Planning, Landscape Theory, Landscape Practice, Landscape Management. Each student will be assigned to a supervisor approved by the Course Coordinator. In general, the supervisor will provide guidance on the selection of topic, investigation and research, and preparation of the proposals and submission. Research Project 2 requires the completion, communication and presentation of the research project to professional standard.

Courses: PS70, PS71
Credit Points: 12 **Contact Hours:** 3 per week

■ **PSN213 SPECIALISATION**

This unit ensures personalised study which will support the student's elected specialisation and contribute directly to the better understanding of the Research Project topic. Students will undertake study to develop specialised knowledge and skills related to the specific concentration and supporting the direction of the proposed Research Project topic. Study may be taken from specific programs offered by the school or from advanced units within the University or, where appropriate, through another university or through specialist studies offered by staff.

Course: PS71
Credit Points: 12 **Contact Hours:** 4 per week

■ **PSN214 ELECTIVE**

This unit allows development of depth in understanding of issues related to the elected specialisation. The School may offer specific programs in areas of specialisation or students will elect unit/s from within the University or, where appropriate, from other universities and approved by the Head of School on the recommendation of the student's supervisor and which will give breadth and/or depth within the student's specialisation.

Courses: PS70, PS71
Credit Points: 12 **Contact Hours:** 3 per week

■ **PSN221 ADVANCED SPECIALISATION**

The student develops further the approved specialised topic. Students may apply for approval for a specific Advanced Specialisation utilising units offered elsewhere in QUT or at another tertiary institution which must, for approval, be an extension of the specialisation studied in PSP510 Specialisation in an earlier semester. The Advanced Specialisation is normally linked to the

PSN212 Research Project II. Areas of specialisation are Regional and Local Development, Urban Housing and Community Development, Urban Design, Environmental and Resource Planning and Special Topic.

Course: PS70
Credit Points: 12 **Contact Hours:** 3 per week

■ **PSN223 SPECIAL TOPICS IN PLANNING METHODS**

The unit will offer support material appropriate to the specialisation the student is undertaking. For example, advanced computer models for economic and demographic forecasting; advanced Geographical Information Systems and advanced computer graphics; regional accounting and regional economic analysis; post-occupancy evaluation of the urban fabric; and possibly advanced presentation and communication techniques.

Course:
Credit Points: **Contact Hours:**

■ **PSP020 LANDSCAPE STUDIES 1**

Landscape Graphics 1: presentation methods which reveal unique characteristics of particular design solution types; lettering and layout with particular reference to the variety of situations. These include perspective sketches, axonometric drawings, section and elevation drawings, quick model making. Introduction to Practice 1 (continues into Landscape Studies 3). The concept of professionalism and contemporary social expectation of the profession. Roles and ranges of employment in the profession, the professional institute, the powers, responsibilities, and activities of landscape architects in private and public employment, future directions, potential and job opportunities associated with landscape architecture. Written and oral communication techniques. Costing related to the professional services of promotion, obtaining commissions, allocating time and resources, and the use of consultants, including the techniques of cost control.

Courses: PS66, PS71
Credit Points: 12 **Contact Hours:** 6 per week

■ **PSP021 LANDSCAPE STUDIES 2**

Landscape heritage. History of form, content, influencing factors and implication of the creation and development of historically, regionally and religiously significant consciously designed landscapes throughout the world. Introduction to the concepts of conservation and preservation; structure of conservation legislation and responsibility in Australia. ICOMOS and the 'Burra' Charter. Landscape Ecology 1 surveys the plant kingdom, emphasising evolutionary trends and consideration of plant systematics and taxonomy as scientific approaches to coping with diversity; classification and the development and use of keys for identification. Life forms as an expression of environmental influences; functional ecological units in plants and animals; populations and population regulation; limiting factors; life cycles; pollination and dispersal.

Courses: PS66, PS71
Credit Points: 12 **Contact Hours:** 7 per week

■ **PSP022 LANDSCAPE STUDIES 3**

Landscape Graphics 2: combined application of free-hand, drafting, monochromatic and colour techniques; selection of colour, theme and emphasis in graphic packages; realism, abstraction, and symbolism in landscape communication. Introduction to Practice 2: see Landscape Studies 1 for common synopsis.

Courses: PS66, PS71
Credit Points: 12 **Contact Hours:** 4 per week

■ **PSP023 LANDSCAPE STUDIES 4**

Planting design: Introduces the operational influences on planting design (time and change, attitudes, and mean-

ings) plus design characteristics (structure and morphology) and criteria. Naturally and culturally derived methods and precedents will be studied. Horticultural issues of plant production and availability, industry standards, plant handling and establishment for all scales and types of planting, plant disorders and treatments, plant management and maintenance. Landscape ecology 2: the broad divisions of the earth in relation to climate and soils – biomes, formations, alliances, associations and societies; the ecosystem concept and its development and application historically and in Australia; biogeographic regions, provinces, land systems and land units; landscape structure and function; map air photo and remote sensed imagery; introduction to photogrammetry and use of stereoscopes.

Courses: PS66, PS71

Credit Points: 12

Contact Hours: 5 per week

■ **PSP024 ADVANCED LANDSCAPE STUDIES 1**
Advanced Landscape Construction 1 (continues into Advanced Landscape Studies 3): theory and techniques for construction of platforms, land stabilisation, clearing and demolition, earth dams, lakes and flood levees, broadscale stormwater drainage and control, sports facilities and swimming pools, irrigation systems. Associated engineering services and structures and the planning/schedule/control of civil engineering works. Types of documentation used for the implementation of landscape works including working drawings, specifications, bills and schedules of quantities, and methods of production. Emphasis is given to use of computer support to build graphical data and attribute data skills. Landscape Management A: relationship between management and construction, management created/dependent landscapes and construction created landscapes.

Courses: PS66, PS71

Credit Points: 12

Contact Hours: 6 per week

■ **PSP025 ADVANCED LANDSCAPE STUDIES 2**
Advanced Landscape Graphics: develop a variety of techniques of presentation graphics with particular reference to three-dimensional presentation in 'drawn' form. Quick techniques of animation additions to presentation drawings will be illustrated and emphasis on detail and understanding of design through section and perspective exploration will be encouraged. Advanced Landscape Practice 1: introduction to research and quality control, principles of marketing, client analysis and promotion; forum discussions will be structured around topical issues as debates, panel discussions or seminars which may involve visiting specialist lecturers and/or participants.

Courses: PS66, PS71

Credit Points: 12

Contact Hours: 4 per week

■ **PSP026 ADVANCED LANDSCAPE STUDIES 3**
Advanced Landscape Construction 2: see Advanced Landscape Studies 1 for common synopsis. Landscape Management B: landscape assessment, including visual and scenic quality, environmental impact assessment components and an outline of current commonwealth, state and local government environmental assessment procedures and applications. Computer techniques: types of GIS, potential and problems, and current issues, computerised three-dimensional modelling. Advanced landscape ecology: structure of landscapes and impact of human settlement; interaction between adjacent elements, wind, soil and water; connectivity of habitats and the dispersal of plants and animals; landscape and vegetation dynamics, scales of change; wildlife and conservation evaluation. Rural land use issues, systems, resource planning, rural land evaluation techniques. Resource management issues and systems, resource inventories and evaluation techniques. Approaches to conflict

resolution in resource management.

Courses: PS66, PS71

Credit Points: 12

Contact Hours: 7 per week

■ **PSP027 ADVANCED LANDSCAPE STUDIES 4**
Cultural Values: landscape as art or artefact; the scientific, rationalist approach and evolving environmental romanticism; functionalism, symbolism and meaning. Advanced Landscape Practice 2: approved practical experience of at least three weeks will be prerequisite to or corequisite with this unit, principles of contract law, forms of contract, standard conditions of contract and engagement, principles of contract administration, case study, and professional presentation.

Course: PS66, PS71

Credit Points: 12

Contact Hours: 3 per week

■ **PSP211 RESEARCH PROJECT 1 & ADVANCED RESEARCH METHODS**

Literature reviews. Review of quantitative and qualitative research methodologies. Forecasting and analysis for planning and use of microcomputer statistics, information and analysis packages. Writing a research report. Preparation of a detailed research proposal with clear aims, an established methodology, a satisfactory outline, and a coherent timeline. The project outline will form the starting point for additional work in PSN212 Research Project II.

Courses: PS67, PS70

Credit Points: 12

Contact Hours: 3 per week

■ **PSP212 USER & CHARACTER DESIGN STUDIES**

The values, rationales and philosophies of site planning. Design processes and dimensions, image ability and livability factors. The study of human functioning in environments, concepts of the life space, behaviour settings, genius loci. Design studies will be concerned with user behaviour and requirements within a specific site; analysis of the same or a different space in the light of both its own inherent character and the user needs and responses and the introduction of abstraction and three-dimensional design.

Courses: PS66, PS71

Credit Points: 12

Contact Hours: 3 per week

■ **PSP213 SITE PLANNING**

Introduction to the processes of site planning and detailed site design that lead to defensible and accountable solutions. Application of site planning principles and theory for different scales and types of projects; site utilisation and selection; application of site survey and analysis techniques; natural and human influences in physical design; environmental and social implications of design decisions; siting and integrating activities, structures and services; landform manipulation.

Courses: PS66, PS71

Credit Points: 12

Contact Hours: 3 per week

■ **PSP214 RESIDENTIAL LANDSCAPE DESIGN**
Introduction to the range of housing and subdivision types; how private and common land is controlled and managed; consequences for design. Controls, by-laws, standards and regulations for residential development. Studio: an intensive program requiring both group and individual work; written critique of an existing development, preparation of layouts for a range of housing development types, and detailed landscape design within a specific development type.

Courses: PS66, PS71

Credit Points: 12

Contact Hours: 3 per week

■ **PSP215 URBAN LANDSCAPE DESIGN**

Client and user analysis, data gathering and information requirements, programming of work for site planning

and detailed design services, programming of implementation; user/function analysis and site capacity considerations and preparation of a project brief. A medium scale intensive/multiple use project which demands redesign and rehabilitation will be undertaken. Students will be expected to make time available outside studio hours to visit project site(s) and carry out such site surveys and such 'Client' interviews as are necessary to establish project briefs and carry out the design project.

Courses: PS66, PS71

Credit Points: 12 Contact Hours: 3 per week

■ PSP216 LANDSCAPE PLANNING

The theoretical framework of landscape planning: relevant theories, methods and techniques for application in the landscape planning process. Studies will include medium to large scale projects involving a range of biophysical, cultural and visual issues with a relatively high degree of complexity. The focus will be on assessment and evaluation of related landscape attributes and issues with emphasis on landscape management options in the form of policies, guidelines and implementation strategies.

Courses: PS66, PS71

Credit Points: 12 Contact Hours: 4 per week

■ PSP218 ADVANCED LANDSCAPE DESIGN

Landscape design problems of increased scope, complexity and constraint with particular reference to a specific and relevant site. Emphasis on resolution of design at a broad scale, contextual concept based on a chosen theme, through to a detailed resolution of a particular area.

Courses: PS66, PS71

Credit Points: 12 Contact Hours: 4 per week

■ PSP219 ADVANCED LANDSCAPE DESIGN

Landscape design problems of increased scope, complexity and constraint with particular reference to a specific and relevant site. Emphasis on resolution of design at a broad scale, contextual concept based on a chosen theme, through to a detailed resolution of a particular area.

Courses: PS66, PS71

Credit Points: 12 Contact Hours: 4 per week

■ PSP251 LANDSCAPE CONSTRUCTION 1

Reading; understanding of contours, landform and use of sections. Introduction to measurement, recording of field data and preparation of measured site drawings. Terms; types of structures and loadings. Land grading; manual techniques of land surface manipulation: design of platforms for buildings, car parks, sports ovals, and other features and the associated provision of surface drainage. Development of understanding of the properties of common construction materials and their application in landscape construction. Techniques for preparation of construction documents.

Courses: PS66, PS71

Credit Points: 12 Contact Hours: 4 per week

■ PSP252 LANDSCAPE CONSTRUCTION 2

Reading; understanding of contours, landform and use of sections. Introduction to measurement, recording of field data and preparation of measured site drawings. Terms; types of structures and loadings. Land grading; manual techniques of land surface manipulation: design of platforms for buildings, car parks, sports ovals and other features and the associated provision of surface drainage. Development of understanding of the properties of common construction materials and their application in landscape construction. Techniques for preparation of construction documents.

Courses: PS66, PS71

Credit Points: 12 Contact Hours: 3 per week

■ PSP311 PROFESSIONAL PRACTICE MANAGEMENT

Business communication; oral communication, interviews, meetings, workshops and seminar presentations; office management; small business law; trade practice, contract, taxation, employment; workplace and safety legislation; professional ethics, professional bodies, Surveyors Act and Regulations, disciplinary procedures, relationships, clients and marketing; survey integration; aspects of change; roles of barrister and solicitor; brief for court appearance; expert witness; government agencies.

Course: PS68

Credit Points: 12 Contact Hours: 9 per week

■ PSP312 SURVEY COMPUTING & PROCESSING

DOS operating system and computer programming; word processing, project management, spreadsheets; programmable calculators for field use; surveying and drafting packages; management and technical applications.

Course: PS68

Credit Points: 8 Contact Hours: 6 per week

■ PSP313 SURVEY PROJECT MANAGEMENT

Quality assurance; client requirements, submission, execution and wrap-up; complex projects, involving resources, costs and timing; network methods; project management software; time costing, hourly rates and chargeable time; involvement with clients and other consultants; project team building; project specifications; technical requirements field methods, booking forms and equipment; overseas projects.

Course: PS68

Credit Points: 8 Contact Hours: 6 per week

■ PSP314 BOUNDARY DEFINITION SURVEYS 1

Land registration requirements; cadastral history, field procedures and records; reinstatement theory and practice related to urban and rural boundaries; field survey work involving the redefinition of urban and rural boundaries; office reinstatement exercises of increasing complexity to develop the necessary skills in assessing various types of survey problems; office completion of project work, including plan preparation using appropriate computer technology.

Course: PS68

Credit Points: 12 Contact Hours: 9 per week

■ PSP315 PROPERTY DEVELOPMENT SURVEYS

Legislation; urban and rural subdivision design and requirements; procedures involved with rezoning and subdivision applications; building units and group titles developments; multiple use development.

Course: PS68

Credit Points: 8 Contact Hours: 6 per week

■ PSP321 SPATIAL INFORMATION SYSTEMS

Assessment of maps and aerial photographs as data sources; mapping specifications; planning mapping projects; aerial photography, flight planning and costing; ground control requirements, including placement of ground targets and photo identification of ground points; aero triangulation, stereo plotting, map production and digital data aspects; planning, costing and preparation of specifications for comprehensive mapping task; GPS theory and practical application; LIS/GIS technology and its practical application.

Course: PS68

Credit Points: 8 Contact Hours: 6 per week

■ PSP322 ENGINEERING SURVEYING

Assessment of available technology, configuration of measuring systems and recording of data; project defi-

nition, preparation of specifications including field methodology, documentation requirements of field records, determination and assessment of results; management of engineering survey projects, including costing, submissions, working with other professionals, dealing with on-site variations; long-line survey control; road surveys; flood surveys; curves, batter staking, other marking for construction and road design.

Course: PS68
Credit Points: 12 **Contact Hours:** 9 per week

■ **PSP323 PROJECT SITE SURVEYS**

Detail surveying; methods, equipment, data requirements and data transfer; specifications and estimate of costs; field detail survey; processing of field data, report and plan presentation; types of construction and building control surveys; preparation of plans and specifications; building construction site inspection; instructions, documentation and communication with contractors; high precision survey and error adjustment techniques involved with construction and building control surveys; construction site set out calculations.

Course: PS68
Credit Points: 8 **Contact Hours:** 6 per week

■ **PSP324 BOUNDARY DEFINITION SURVEYS 2**

Complex and difficult reinstatement exercises; field survey project work associated with difficult boundary definition; field survey project work associated with boundary definition for easement surveys and mining lease surveys.

Course: PS68
Credit Points: 12 **Contact Hours:** 9 per week

■ **PSP325 PROPERTY MANAGEMENT SURVEYS**

Requirements for survey and registration of plans in various government Acts relating to surveying; easements for transmission lines; easement surveys; dealing with client, proposal, costing and submission, field survey and plan preparation; road closures, location certificates and lease surveys; cadastral survey problem areas.

Course: PS68
Credit Points: 8 **Contact Hours:** 6 per week

■ **PSP401 URBAN DESIGN ANALYSIS STUDIO**

This unit emphasises the development of skills in analysis related to the urban design process and adequate communication of the results.

Courses: BN73, PS69
Credit Points: 12 **Contact Hours:** 3 per week

■ **PSP402 URBAN DESIGN CONTEXT STUDIO**

Students undertake studies typically from a community participation project, a sense of place project, a conservation and infill project for the redevelopment/ rehabilitation of urban precincts or residential areas. Techniques of guidance and control: the use of regulations, ratios and performance standards. Positive planning and the use of incentives for good design: bonuses, transferable rights, advance publication of permissible development, rapid decisions, early dissemination of information. Work in other units of study is related to this unit.

Courses: BN73, PS69
Credit Points: 12 **Contact Hours:** 3 per week

■ **PSP403 URBAN DESIGN CONJECTURE STUDIO**

Identification and classification of approaches to urban design. The setting of objectives, the adoption of a method and the testing of implications for a particular urban design problem type. Students are required to undertake studies typically from: local area, precinct, part of the city, the city as a whole. Where applicable, work in other units of study is incorporated into this unit.

Courses: BN73, PS69
Credit Points: 12 **Contact Hours:** 3 per week

■ **PSP405 URBAN DESIGN FIELD STUDIES**

This unit consists of a field trip of approximately ten days' duration. Visits to successful and unsuccessful examples of urban design and to design offices in the eastern states and the Australian Capital Territory. Students analyse existing and proposed examples in the context of their original design criteria including cultural, social, political, economic and physical aspects to understand the applicable design rules. Examples are reviewed through site visits, discussion and seminars with designers and users.

Courses: BN73, PS69
Credit Points: 4 **Contact Hours:** 10 days

■ **PSP411 ENVIRONMENTAL PSYCHOLOGY**

The social and cultural development of Australian urban environments, with particular reference to the local built environment. The study of human functioning in urban environments. Theory: privacy, person space, territoriality, environmental meaning and cognition, cognitive ways and wayfinding, intercultural and intracultural differences. Application via examination and analysis of an urban environment or an artefact with respect to its sociocultural function.

Courses: BN73, PS69
Credit Points: 4 **Contact Hours:** 2 per week

■ **PSP416 COMPUTER-AIDED DATA ANALYSIS**

The development of skills and application of computer aided data analysis in design. The emphasis is on building graphical data and attribute data skills; database management software; input and manipulation of data; development of graphic skills using the Autocad system.

Courses: BN73, BN75, PS69
Credit Points: 2 **Contact Hours:** 1 per week

■ **PSP421 HISTORY OF URBAN SYSTEMS**

Analysis of urban forms and systems in the pre-industrial, industrial and post-industrial periods. Specific topics include urban activities: commerce, manufacture, administration, dwelling, recreation and culture; urban services: water supply, transportation, defence and public order, fire control, sewerage and waste disposal, fuel and power, public information; urban form: planning for intelligibility, planning for propriety and symbolism, planning for delight.

Courses: BN73, PS69
Credit Points: 4 **Contact Hours:** 1 per week

■ **PSP424 URBAN DESIGN THEORY & CRITICISM**

The characteristics of good theory in the field of urban design in relation to the work of a number of theoretical writers and schools. Specific topics include theoretical writing on urban design before 1800, theory and practice in the nineteenth century, the kunstlerischen Grundsätzen of Camillo Sitte, the Garden City movement, Le Corbusier and Modernism, the Townscape movement, Jacobs and 'The Death and Life of Great American Cities', Alexander on the urban system, the intelligible city, the work of Lynch and Appleyard, Rapoport on urban meaning, Habraken, Rowe and the city as independent artefact, Canter, Relph and Tuan on the phenomenology of the city, Maitland's analysis of urban design concepts.

Courses: BN73, PS69
Credit Points: 4 **Contact Hours:** 1 per week

■ **PSP432 URBAN LANDSCAPE**

The city as a landscape unit, examples of city/site rela-

tionships; contribution of natural factors and patterns: topography, soils, drainage, vegetation, climate; towards better delineation of urban form and character. Spaces and their organisation, the city as spatial entity, sequential experience; spaces for specific purposes; choreography of spaces: use, settings, and furnishings, enclosures, floors, overhead structures, services, features, finishes. Natural elements and their nurturing within urban areas: vegetation species, groupings, their requirements, streets, plazas, forecourts, roofs, urban forests, natural areas; water bodies and their conservation as healthy features; urban wildlife: habitats and contribution to the urban experience; landscape conservation techniques in urban areas.

Courses: BN73, IF64, PS69

Credit Points: 4 **Contact Hours:** 1 per week

■ PSP434 URBAN SERVICES & FUNCTIONS

Urban services: functional services of power, telephone, gas, water, stormwater and sewerage reticulation; controlling authorities, planning requirements and controls relevant to urban design. Community services related to health, safety and welfare, such as medical, fire, emergency services, libraries, police, community participatory groups; controlling authorities, extent of services provided and controls relevant to urban design. Origins and destinations of traffic movements. The road hierarchy and its characteristics. Features of major terminals, car parks, pedestrian and cycle networks. Modes of travel and transport systems, railway and light rail, water, evaluation of comparative system. Major traffic generators: airports, terminals, CBD circulation. Related environmental and design issues: noise, atmospheric pollution, physical and visual impacts of different systems and traffic channels. Future trends in transport and movement systems and related issues.

Courses: BN73, PS69

Credit Points: 4 **Contact Hours:** 1 per week

■ PSP441 COMPUTER APPLICATIONS IN URBAN DESIGN

The use of computers to analyse and solve urban design problems and communicate solutions. Feasibility studies; land use studies; generation of envelope and space layouts; environmental and service systems analysis; development control testing; data handling and manipulation; computer graphics; interactive integrated design systems.

Courses: BN73, PS69

Credit Points: 4 **Contact Hours:** 1 per week

■ PSP442 LAW & LEGISLATION IN URBAN DESIGN

Legislative controls and law reform related to urban design and the development process with specific reference to Queensland. Topics include the potential range of legislative controls, principal relevant legislation in Queensland and its impacts on urban design, the development control authority, arbitration processes of the state government and influence of additional legislation (e.g. Group Title, Heritage Acts, pedestrian malls) on the urban design process.

Courses: BN73, PS69

Credit Points: 4 **Contact Hours:** 1 per week

■ PSP501 ENVIRONMENTAL PLANNING & ASSESSMENT

Applied studies in geology and geomorphology, climate, soils and hydrology, the broad soil and plant community associations. Sustainability and urban planning. Environmental economics. Land capability. Environmental ethics. Environmental impact studies and assessment techniques, including social impact assessment. Public and environmental policy. Approaches to land tenure and

beliefs about land. Relevant environmental policy development and alternative strategies at national, state and local levels.

Courses: PS67, PS70

Credit Points: 12 **Contact Hours:** 3 per week

■ PSP502 ECONOMIC & SOCIAL FOUNDATIONS OF PLANNING

The historical development of planning in a social context. Introduction to social theory. Planning for social benefit. Urban economics; the economics of community and local development. Local labour markets. Structural economic change and the global economy. Public interest and individual preferences. Australian government and urban policy development and alternatives at national, state and local level.

Courses: PS67, PS70

Credit Points: 12 **Contact Hours:** 3 per week

■ PSP503 PLANNING & RESEARCH METHODS

The structure, methodological context and elements of the planning process. The role of objectives, information, interpretation, policy formulation, generation of alternatives, evaluation and monitoring. The use of quantitative methods and reasoning. Qualitative research, including case studies. Survey design, administration and analysis. Use of maps and other cartographic resources. Computer-based methods of analysis and presentation of data. Research design, including writing of research proposals. Oral and written presentation.

Courses: PS67, PS70

Credit Points: 12 **Contact Hours:** 3 per week

■ PSP504 URBAN SYSTEMS & INFRASTRUCTURE

Population models, population changes, use of census materials, demographic analyses and projections as the basis for understanding community needs. Land use generation and allocation. Housing and the urban system. Transport and other infrastructure planning. The urban land development process. Planning for commercial, industrial and related economic enterprises. Urban systems and hierarchies. Urban infrastructure management and coordination.

Courses: PS67, PS70

Credit Points: 12 **Contact Hours:** 3 per week

■ PSP505 PLANNING IN SOCIETY

Major issues in contemporary society, including gender, multiculturalism, etc.; public policies in Australia, relating to employment, housing, urban and regional development, health, income and education. Public participation and community action; planning aid and advocacy planning. Conflict management, resolution and negotiation. Social impact assessment.

Courses: PS67, PS70

Credit Points: 12 **Contact Hours:** 3 per week

■ PSP506 PLANNING THEORY & ETHICS

Major contributions to planning and decision-making theory, including the rational comprehensive, incrementalist, mixed scanning and other models. Critical and political economy theory and other theories for planning. The nature and role of a professional and professionalism; codes of practice and ethics; the role of the professional planner in the private and public practice; situations of professional conflict; the role of the expert witness.

Courses: PS67, PS70

Credit Points: 12 **Contact Hours:** 3 per week

■ PSP507 PLANNING PROCEDURES & LAW

Planning law and administration in Queensland and Australia, with international comparisons. Corporate and

strategic planning, project management. Planning communication and negotiation skills, particularly in implementing planning proposals. Evaluation of planning projects and their outcomes. Community and local economic development.

Courses: PS67, PS70

Credit Points: 12

Contact Hours: 3 per week

■ PSP508 PLANNING PRACTICE I

The core of this unit is a problem-solving group project set in an inner metropolitan or small town location, normally undertaken in conjunction with local communities and councils. The subdivision exercise may be included as part of the major project or as a separate scheme. This unit offers scope for the application of knowledge and skills in the fields of site analysis and planning and land development. Lectures on these and other related topics provide relevant inputs to this practice oriented unit. Lectures will include relevant aspects of planning legislation. The unit will include examples of recent best practice in the planning field (e.g. through the commonwealth Local Approval Review Process review or related programs).

Courses: PS67, PS70

Credit Points: 12

Contact Hours: 3 per week

■ PSP509 REGIONAL & METROPOLITAN POLICY

Theories of regional and metropolitan development. Regional analysis methods, including input-output models, economic base studies and the like. The impact of the Australian federal system and inter-governmental relations on the ways in which metropolitan and other regions are planned and governed. Regional and metropolitan policies and management, including coordinating mechanisms. Regional and metropolitan management models and comparisons. The role of statutory authorities. Planning for rural and regional areas. Principles of regional environmental and land use planning and approaches such as integrated catchment management.

Courses: PS67, PS70

Credit Points: 12

Contact Hours: 3 per week

■ PSP510 SPECIALISATION

The student undertakes a supervised program of study in an approved selected field. The student may choose from a limited list of approved fields, depending on staff expertise and availability. Students may apply for approval for a specific specialisation utilising units offered elsewhere in the QUT or at another tertiary institution which must, for approval, also lead on to an Advanced Specialisation in a later semester. Students will normally choose a specialisation which relates to their intended Research Project. Areas of Specialisation are Regional and Local Development, Urban Housing and Community Development, Urban Design, Environmental and Resource Planning, and Special Topic.

Courses: PS67, PS70

Credit Points: 12

Contact Hours: 3 per week

■ PSP512 PLANNING PRACTICE II

The core of this unit is a problem-solving group project focusing on a planning region which is generally larger and more complex than a single town, such as a town and its hinterland, a metropolitan region or a functional rural region. This unit offers scope for the application of knowledge and skills gained in other units, including PSP509 Regional and Metropolitan Policy. Relevant aspects of planning legislation will be included.

Courses: PS67, PS70

Credit Points: 12

Contact Hours: 3 per week

■ PSP513 FIELD TRIP

The field trip will consist of a structured, staff-guided visit of about one week to one or more of a number of

appropriate locations, including non-metropolitan areas of Queensland, other metropolitan centres in Australia, and possibly overseas.

Courses: PS67, PS70

Credit Points: 0

Contact Hours: 1 week

■ PST901 ENGINEERING SURVEYING

Fundamental survey concepts, coordinate systems, differential and simple ingometric levelling, angular measurements; bearing and azimuth; linear measurements by steel tape and stadis.

Course: CE21

Credit Points: 7

Contact Hours: 3 per week

■ PUB109 INTRODUCTION TO ENVIRONMENTAL HEALTH

Students are introduced to a brief history of environmental health in Queensland. The current issues of environmental health within the public health agencies at all levels of government and the principal public health legislation in this state are reviewed. Students develop an understanding of the complexity of environmental systems, the effects of pollutants on such systems and the interdisciplinary approaches needed to address these problems.

Courses: NS40, NS48

Credit Points: 8

Contact Hours: 3 per week

■ PUB130 AUSTRALIAN HEALTH INDUSTRY

A broad overview of the systems of health care in Australia and their methods of operation. The public and private health and medical care sectors are discussed. The political environment, health care institutions, community health, public health, and the problems of coordination and integration of health services are also studied.

Course: PU48

Credit Points: 12

Contact Hours: 3 per week

■ PUB207 INTRODUCTION TO ENVIRONMENTAL HEALTH

A brief history of environmental health in Queensland; the current role of environmental health officers within the public health agencies at all levels of government and the principal public health legislation in this state; development of an understanding of introductory law and environmental law, the complexity of environmental systems, the effects of pollutants on such systems and the interdisciplinary approaches needed to address these problems; aspects of professional communications and report writing.

Course: PU42

Credit Points: 12

Contact Hours: 4 per week

■ PUB210 OCCUPATIONAL HEALTH & SAFETY 1

The basic concepts of occupational health and safety, such that they can identify health and safety problems in the workplace; strategies for dealing with such problems, and the legislation, government agencies and health personnel associated with the working environment. Topics covered include the physical, chemical and biological working environments and temporal work patterns.

Courses: ME46, PU42

Credit Points: 8

Contact Hours: 4 per week

■ PUB211 OCCUPATIONAL HEALTH & SAFETY 2

Develops further the principles covered in PUB210 and PUB212 and highlights their practical application to the workplace. Students also develop knowledge and skills associated with the actual measurement of the physical and chemical working environment, physiological effects on humans in the workplace and evaluation of the data collected.

Courses: ME46, PU42, PU44

Prerequisite: PUB210 or PUB212

Credit Points: 8 **Contact Hours:** 4 per week

■ **PUB212 OCCUPATIONAL HEALTH & SAFETY I**

The basic concepts and theoretical framework of occupational health and safety as noted in PUB210 ; introduces students to the communication skills and devices relevant to the profession. Students participate in single and group activities to develop English expression, public speaking, debating and discussion group skills.

Courses: PU44, PU48

Credit Points: 12 **Contact Hours:** 5 per week

■ **PUB220 MEDICAL TERMINOLOGY**

Exploration of the language of medicine; analyses medical terms into Latin and Greek word roots, prefixes, suffixes and combining forms. Medical terms which relate to specific body systems are defined, spelled and pronounced accurately; common abbreviations and symbols used in medicine are identified; abstracts from patient records are explained and interpreted in non-technical language.

Course: PU48

Credit Points: 12 **Contact Hours:** 3 per week

■ **PUB233 INFORMATION, EDUCATION & COMMUNICATION FOR HEALTH**

A study of the processes of communication in the health fields. It covers person-to-person communication such as patient-professional communication; communication in small groups; public education for health; diffusion and adoption of new health-related behaviours; the role of information; the use of mass media; communication within health organisations.

Courses: HM42, PU48

Credit Points: 12 **Contact Hours:** 3 per week

■ **PUB241 HEALTH STUDIES I**

Overview of the nature of health in Australian society; serves as the foundation study in this minor from which a number of separate, more detailed studies emerge in level 2 and 3 units; an understanding of broad health issues and problems is essential to equipping health educators for their roles in promoting optimal health of Australians. These include addressing prevention of major risk factors and developing a commitment to promoting healthy lifestyles.

Course: ED41

Credit Points: 8 **Contact Hours:** 3 per week

■ **PUB251 INTRODUCTION TO PUBLIC HEALTH**

Introduction to the philosophy and approach of public health; the traditional public health process; the multidisciplinary nature of public health; health policy and its impact on public health; some recent reformulations of traditional public health approaches including: health promotion, intersectoral action for health and healthy public policy. The role of public health in Australia and overseas, its main components and some of the constraints faced by public health.

Course: PU48

Credit Points: 12 **Contact Hours:** 3 per week

■ **PUB272 HOME ECONOMICS 2**

The place of the consumer in the Australian economy; the consumer in the market place; alternatives to mass consumption; legal procedures; legal requirements regarding business transactions and business organisations; consumer protection; family and the law.

Course: PU49

Credit Points: 12 **Contact Hours:** 3 per week

■ **PUB276 HOME ECONOMICS 1**

Art elements and principles; qualities of natural and non-natural materials; design process; design presentation; effects of changing technology on form and construction; ergonomics.

Course: PU49

Credit Points: 12 **Contact Hours:** 4 per week

■ **PUB299 HEALTH INFORMATION MANAGEMENT I**

An introduction to the principles of health record management and their application in hospitals; presents an overview of the interrelationships between the various processes of the medical record department and functionally related areas in health care facilities. Topics include: the structure, format and use of medical records, the function of medical record departments, quantitative analysis of medical records, and health information collection and retrieval systems, both manual and computerised.

Course: PU48

Credit Points: 12 **Contact Hours:** 4 per week

■ **PUB300 POLLUTION SCIENCE 1**

The causes, effects, control measures, standards and legislation relating to land contamination and solid waste management.

Course: PU42

Credit Points: 8 **Prerequisites:** CHB242, PHB250
Contact Hours: 4 per week

■ **PUB301 ENVIRONMENT PROTECTION 2**

The causes, effects, control measures, standards, legislation and management strategies relating to pollution and environmental protection.

Course: PU42

Prerequisites: PUB207, CHB242, PHB263
Credit Points: 8 **Contact Hours:** 4 per week

■ **PUB302 PODIATRIC MEDICINE 1**

The health, social and economic implications of podiatric care in the general population with particular reference to specialised groups, e.g. children, diabetics, the aged and sports patients. It also provides foundation studies essential to the preclinical student in the diagnosis and treatment of conditions commonly manifest in the foot.

Course: PU45

Credit Points: 8 **Corequisite:** PUB303
Contact Hours: 4 per week

■ **PUB303 CLINICAL SCIENCE I**

On completion, students should be able to demonstrate competent operating skills; expertise in clinical observation of the patient and the elicitation of an accurate medical record; recognise common clinical entities and implement appropriate treatment and develop a professional attitude towards patients, clinical teaching and care of equipment.

Course: PU45

Prerequisite: MEB031

Corequisite: PUB302

Credit Points: 12 **Contact Hours:** 6 per week

■ **PUB304 PHYSICAL MEDICINE**

Introduction to a wide range of diagnostic and physical treatment modalities used in modern podiatric practice. On completion, students should be able to understand the uses, applications, contraindications and limitations of each modality studied in direct connection with on-going clinical studies and the theoretical component of podiatric medicine lectures.

Course: PU45

Prerequisite: LSB451

Corequisite: PUB410, PUB504

Credit Points: 8 **Contact Hours:** 3 per week

■ **PUB306 PHARMACOLOGY**

Designed to ensure that students understand basic drug therapies their patients may be using, the groups of drugs used for specific diseases and their application and rel-

evance to podiatry and clinical podiatry. Emphasis is placed on drug groups and their use for specific disease, rather than proprietary brands. Students learn to recognise the drug groups and know the system they are acting on in the body. In addition, differentiation between the different groups within one group of systemic drugs and why they are used for a condition is emphasised.

Course: PU45 **Prerequisites:** CHB242 or CHB289
Corequisite: LSB371

Credit Points: 8 **Contact Hours:** 3 per week

■ **PUB312 HOME ECONOMICS CURRICULUM STUDIES 1**

Provides students with a range of understandings and competencies for analysing, interpreting and managing home economics classrooms in order to maximise learning. Long and short term planning is explored with an emphasis on planning, implementing and evaluating lessons using a variety of strategies, resources and assessment techniques. The nature of home economics and how this is manifest in curriculum documents is examined.

Courses: ED50, ED54

Prerequisites: 48 credit points in relevant discipline area
Credit Points: 12 **Contact Hours:** 3 per week

■ **PUB313 DESIGN**

Design has a relevance to both the teaching and learning process and the discipline of home economics. In the areas of textiles, food and shelter there is a role for the application of design as well as critical evaluation and communication of the products of design; provides students with generic design knowledge as well as experience in the application of this knowledge in the specific areas of home economics.

Course: ED50

Credit Points: 12 **Contact Hours:** 3 per week

■ **PUB317 MANAGEMENT & CONSUMER STUDIES**

Management and consumer issues pervade all areas of home economics. Management and consumer concepts pertinent to individual and group living leading to the optimisation of well-being.

Course: ED50

Credit Points: 12 **Contact Hours:** 4 per week

■ **PUB319 FOOD & NUTRITION**

Issues related to choosing a diet which will promote health; nutritional needs for humans; translating these to food selection and preparation.

Course: ED50

Credit Points: 12 **Contact Hours:** 6 per week

■ **PUB321 TEXTILES 1**

Scientific understanding and aesthetic aspects of textiles, their selection, use and care, with reference to specific end uses; practical aspects of construction and surface design of textile articles; textile project.

Course: ED50

Credit Points: 12 **Contact Hours:** 6 per week

■ **PUB322 HOME ECONOMICS CURRICULUM STUDIES 2**

Encourages students to make independent judgements about home economics curriculum decision-making, within syllabus guidelines and broader systems policies concomitant with national and international trends in education and society. Students are given the opportunity to explore current issues and emerging and future trends in home economics and to develop a confident approach to school-based curriculum development. Advanced teaching strategies and current assessment procedures are developed.

Courses: ED50, ED54

Credit Points: 12 **Prerequisite:** PUB312
Contact Hours: 3 per week

■ **PUB323 HOME ECONOMICS: SOCIAL FOUNDATIONS**

Home economics is concerned with the well-being of individuals and families; to achieve this goal, individuals must have an understanding of development from conception to old age, and a critical awareness of the social processes which influence this development; home economics issues.

Course: ED50

Credit Points: 12 **Contact Hours:** 4 per week

■ **PUB325 SHELTER STUDIES**

Critical aspects of shelter as a fulfilment of people's basic needs; design, technology and legislation linked to decisions affecting provision of shelter for the differing needs of individuals and families.

Course: ED50

Credit Points: 12 **Contact Hours:** 4 per week

■ **PUB327 HEALTH ISSUES IN AUSTRALIA**

Australians' major health concerns; the multidimensional nature of health; initiatives undertaken to address health problems at individual, community and national levels; prevention as a pivotal concept in health status.

Courses: ED50, ED51

Credit Points: 12 **Contact Hours:** 3 per week

■ **PUB329 FOUNDATIONS OF HEALTH STUDIES & HEALTH BEHAVIOUR**

The foundations of the discipline of health education, its theoretical framework and concepts of models of health, health education and health promotion.

Course: ED50 **Prerequisites:** SSB922, PUB327

Corequisite: HMB305

Credit Points: 12 **Contact Hours:** 3 per week

■ **PUB331 SHELTER STUDIES 2**

The linking of human physical and psychosocial needs, environmental and technological issues and design aspects to the effective provision of shelter, with emphasis being placed on the development of advanced skills and knowledge; environmental and technological aspects which have implications on shelter design for the well-being of the individual and families; effective design to accommodate changing family structures; legislative updates.

Courses: PU49, ED50

Prerequisites: PUB325 or PUB372

Credit Points: 12 **Contact Hours:** 4 per week

■ **PUB334 FOOD FOR HEALTH**

Exploration of concepts which impinge on food-related behaviours and develop concomitant cognitive competencies. Students are encouraged to recognise that their own personal pro-active stance in relation to food-related health issues can contribute to better health for all Australians.

Course: ED50

Credit Points: 12 **Contact Hours:** 3 per week

■ **PUB335 OCCUPATIONAL & ENVIRONMENTAL HEALTH**

Study of environmental and occupational health issues in their broadest context and their impact on individual health.

Course: ED50

Credit Points: 12 **Contact Hours:** 3 per week

■ **PUB336 WOMEN'S HEALTH**

Exploration of the data and health issues related to women's health; critically evaluates health-related policies, systems and practices in terms of their impact on women's health.

Course: ED50

Credit Points: 12 **Prerequisite:** PUB327
Contact Hours: 3 per week

■ **PUB337 HEALTH NEEDS OF SPECIFIC POPULATIONS**

The health needs of a range of specific population groups; considers the broad picture of actual differences in health status among population groups.

Course: ED50 Prerequisite: PUB327
Credit Points: 12 Contact Hours: 3 per week

■ **PUB338 SUBSTANCE USE IN CONTEMPORARY SOCIETY**

An introduction to analytical models, statistical evidence and health education and health promotion strategies applicable to substance use and abuse, to familiarise students with the contemporary nature and extent of substance use in Australia; examines models and strategies to address these issues.

Course: ED50
Credit Points: 12 Contact Hours: 3 per week

■ **PUB349 FAMILIES & HOUSEHOLDS IN AUSTRALIA**

Examination of the emphasis on the family in home economics. Perspectives considered include: structural functionalist, symbolic interactional, conflict and feminist, whether the family provides an appropriate orientation for home economics.

Course: ED50
Credit Points: 12 Contact Hours: 4 per week

■ **PUB353 CONSUMER FOOD**

The role of the food industry in relation to lifestyles in modern societies; the scientific principles and operations involved in the preservation and manufacture of foods; the composition, the ingredients, the labelling and marketing methods of a representative range of commercial foods; current consumer issues such as the safety of food additives, food irradiation, consumer protection, new product development, food regulations and future trends in our food supply.

Courses: ED50, SC30
Credit Points: 12 Contact Hours: 4 per week

■ **PUB355 FOOD SERVICE: PRINCIPLES & PRACTICES**

The use of relevant management principles, safe and hygienic work practices, effective communication skills, sound nutrition and mastery of techniques in food production and presentation.

Courses: ED50, PU49 Prerequisite: PUB474
Credit Points: 12 Contact Hours: 4 per week

■ **PUB356 CLINICAL CLASSIFICATION 1**

Development of skills in one of the major specialities of health information management: clinical classification of diseases and procedures using the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM). Clinical classification responds to internal and external demands for medical information, for example, in-house research and education, ABS hospital morbidity data collections, and casemix information systems.

Course: PU48 Prerequisites: PUB220, LSB142
Corequisite: LSB361
Credit Points: 12 Contact Hours: 4 per week

■ **PUB357 NUTRITION ISSUES IN AUSTRALIA**
A background study into the nutritional issues which are impacting on the quality of Australian lives. These issues are considered in two broad frameworks: (1) the nutritional needs throughout the life cycle and the environmental factors which impinge on realisation of these needs and (2) the aetiology, incidence, outcomes and management of diet-related disorders.

Course: ED50 Prerequisites: PUB319, PUB474
Corequisite: PUB334
Credit Points: 12 Contact Hours: 4 per week

■ **PUB361 TEXTILES 2**

Continuation of PUB321. An understanding of textile consumer issues is developed by a study of relevant commercial enterprises and the implications for the consumer. Creativity is encouraged by students combining skills in pattern development with advanced techniques in constructing textile articles.

Course: ED50 Prerequisite: PUB321
Credit Points: 12 Contact Hours: 4 per week

■ **PUB365 EVOLUTION OF WESTERN DRESS**

Evaluation of Western fashionable dress from ancient times to the present; the relationship between costume and the environment; influencing factors: social, aesthetic, political, economic, geographic, spiritual, technological; emphasis on primary sources from the nineteenth and twentieth centuries; teaching strategies and resources.

Courses: ED26, ED50
Credit Points: 12 Contact Hours: 3 per week

■ **PUB369 TEXTILES: SUPERVISED PROJECT**

Students select and complete an indepth study in one or more methods of creating with textiles. The study includes the development of advanced technical skills and an investigation and evaluation of the corresponding commercial production.

Courses: ED50, PU49
Prerequisites: PUB321 or PUB472 or equivalent
Credit Points: 12 Contact Hours: 3 per week

■ **PUB372 SHELTER STUDIES 1**

Housing tenure; advantages and disadvantages of ownership/tenancy; housing finance; housing for special groups; special needs in housing; interior environment; housing heritage.

Course: PU49
Credit Points: 12 Contact Hours: 4 per week

■ **PUB374 FAMILY STUDIES**

Definitions of the family; the family and society; social class and geographical differences in family patterns; influence of changing social conditions; socialisation and child rearing patterns; families in a multicultural society.

Course: PU49
Credit Points: 12 Contact Hours: 3 per week

■ **PUB381 INTRODUCTION TO APPAREL DESIGN & PRODUCTION**

Offers students an insight into the fashion industry. It also offers an opportunity for students to develop expertise in the area of women's fashion design. Students implement the design process through the production of apparel items. Emphasis is placed on production techniques used in cottage industry.

Course: ED50 Prerequisite: PUB361
Credit Points: 12 Contact Hours: 4 per week

■ **PUB399 HEALTH INFORMATION MANAGEMENT 2**

Continuation of PUB299. There is an emphasis on analysis and improvement of health information management throughout hospitals. The examination of health information services will move outside the medical record department of hospitals to wards, bed allocation and admission offices; accident and emergency departments; outpatient and allied health services and other specialised hospital services such as radiology, pharmacy and pathology. Skills in health data management, forms design and statistical presentation of hospital or health service activities are developed.

Course: PU48
Prerequisites: PUB299 and a one-week practicum
Credit Points: 12 Contact Hours: 4 per week

■ PUB404 CLINICAL SCIENCE 2

At this stage students are able to follow cases through to observe the short-term effect of therapy and are expected to commence case studies to develop comparative and recording skills. Students should now be adopting the standard medical terminology and abbreviations used in clinical situations.

Course: PU45 **Prerequisite:** PUB303
Corequisite: PUB421
Credit Points: 12 **Contact Hours:** 9 per week

■ PUB405 HUMAN NUTRITION

Human nutrition provides a solid basis of nutrition knowledge upon which studies in nutrition may be built. It examines the sociology of food in providing required nutrients. Topics include the science of nutrients, applied nutrition and introduces tools used in basic nutritional assessment.

Courses: PU49, SC30
Prerequisites: LSB305 or LSB308
Credit Points: 12 **Contact Hours:** 5 per week

■ PUB410 MEDICINE

Following completion of this unit, students should be able to recognise and understand the clinical features, pathogenesis and significance of common conditions affecting the lower limbs, e.g. oedema; obesity; motor, sensory and trophic disturbances and their resultant effects in paralysis, ataxia, deformity and ulceration; intermittent claudication, vascular spasm and cramp are taught so as to emphasise their significance. Medical conditions with manifestations in the feet are given particular attention.

Course: PU45 **Prerequisites:** LSB470, LSB451
Corequisite: PUB503
Credit Points: 8 **Contact Hours:** 3 per week

■ PUB411 ORTHOPAEDICS

Emphasis on orthopaedic surgery; develops a detailed knowledge of general and specific orthopaedic conditions which have an effect on the lower limbs and the surgical treatment of systemic conditions as seen by the podiatrist, i.e. diabetes; provides an understanding of the special problems associated with children and specific lower limb conditions with emphasis on the surgical techniques used in their treatment.

Course: PU45 **Prerequisite:** PUB505
Corequisite: PUB303
Credit Points: 8 **Contact Hours:** 3 per week

■ PUB414 HOME ECONOMICS APPLIED CURRICULUM

Issues relating to home economics education; bases for curriculum decision making; nature and structure of home economics; syllabus implementation; innovation; issues that affect home economics.

Course: ED26
Prerequisites: CUB410 or equivalent and curriculum implementation studies at Diploma of Teaching level
Credit Points: 12 **Contact Hours:** 3 per week

■ PUB421 PODIATRIC MEDICINE 2

The foundation for study in the role of therapeutics in patient management including short-term and long-term management of conditions. It expands the range of understanding of the wide variety of conditions presented to the podiatrist. On completion, students should have developed an understanding of the biomechanical principles affecting the joints of the foot and the structural and functional consequences presenting in podiatric practice.

Course: PU45 **Prerequisite:** PUB302
Corequisite: PUB404
Credit Points: 12 **Contact Hours:** 6 per week

■ PUB422 PODIATRIC ANAESTHESIOLOGY

Provides a sound understanding of the science of anaesthetics as applicable to the practice of podiatry. Students are required to understand the pharmacology of local anaesthetics and their clinical usage, and be competent in injection techniques, including local infiltration and local nerve block in the lower limbs.

Course: PU45 **Prerequisite:** PUB421
Corequisite: PUB410
Credit Points: 8 **Contact Hours:** 2 per week

■ PUB423 FOOD & NUTRITION

Nutrition is an important factor in the provision of health, and prevention and management of many disease states. This unit provides an overview of concepts fundamental to an appreciation of the role of nutrition in health care. Topics include: the chemical nature, digestion, absorption and assimilation of nutrients; nutrients provided by the food groups; food selection for a healthy diet; nutrient requirements in particular clinical situations.

Courses: NS40, NS48 **Prerequisite:** LSB281
Credit Points: 8 **Contact Hours:** 3 per week

■ PUB431 ECONOMIC EVALUATION OF HEALTH SERVICES

Economic evaluation of health services; the application of cost analysis, cost effectiveness analysis, cost utility analysis and cost benefit analysis to health programs; problem identification and definition, identifying and valuing costs and benefits, externalities, decision rules and reporting. Not offered in 1996.

Course: PU48 **Prerequisite:** PUB531
Credit Points: 12 **Contact Hours:** 3 per week

■ PUB440 CLOTHING DESIGN

This unit provides an opportunity for teachers to study in this area at a greater depth than that available in the pre-service units. It allows for critical evaluation of influences of the fashion industry, pattern making, clothing construction and the teaching strategies and resources available.

Course: ED26
Credit Points: 12 **Contact Hours:** 3 per week

■ PUB441 NUTRITION EDUCATION

Biochemical approaches to nutrition; history and evolution of nutrition; popular nutrition literature; development of a philosophy of nutrition.

Courses: ED26, ED50, ED51, PU49
Credit Points: 12 **Contact Hours:** 3 per week

■ PUB456 CLINICAL CLASSIFICATION 2

Students will learn to abstract and interpret the information recorded in client/patient medical records. Develop an understanding of the clinician's response to various disease processes and how this information presents in the medical record. A significant component of the unit will involve coding from hospital medical records on-site in an acute care setting. Students become proficient in the art of clinical classification using ICD-9-CM.

Course: PU48
Prerequisites: LSB142, LSB361, PUB220, PUB356
Credit Points: 12 **Contact Hours:** 4 per week

■ PUB472 TEXTILE SCIENCE & TECHNOLOGY

Overview of textiles and textile evaluation; fibres; yarns; fabric construction; finishing treatments; colour and its application to textiles; textile care; textile end-use; principles and practice of textile performance evaluation.

Course: PU49 **Prerequisites:** CHB259 or equivalent
Corequisite: PUB405
Credit Points: 12 **Contact Hours:** 4 per week

■ PUB474 FOOD STUDIES

The behaviour of foods; nature, properties and behaviour of major nutrients in food; interaction between major ingredients in certain foods.

Courses: PU49, ED50

Corequisite: CHB259

Credit Points: 12

Contact Hours: 6 per week

■ PUB478 FOOD SCIENCE & TECHNOLOGY

The role of the food industry in modern society; issues and problems facing consumers and the food industry; food preservation principles; unit processes in the food industry; commercially available food; product development; food technology workshop.

Courses: PU42, PU49

Prerequisites: LSB301, LSB405 or equivalent

Credit Points: 12

Contact Hours: 5 per week

■ PUB481 POLLUTION SCIENCE 2

The causes, effects, control measures, standards and legislation relating to water, air and noise pollution.

Course: PU42

Prerequisites: CHB242, PHB263

Credit Points: 12

Contact Hours: 5 per week

■ PUB482 OCCUPATIONAL HEALTH

Basic concepts of toxicology and the body's responses to toxic substances; basic disease processes in humans and the various agents in the workplace adversely affecting the health of workers.

Course: PU44

Prerequisite: LSB242

Credit Points: 12

Contact Hours: 5 per week

■ PUB483 ERGONOMICS 1

The structure and function of relevant body systems and the ways in which the work environment and work tasks can impinge on normal functions; occupational biomechanics; biomechanical modelling; anthropometry; manual handling; tool and equipment design; the effects of physical factors such as lighting, temperature and humidity on human performance; ergonomics methodologies.

Course: PU44

Prerequisite: MEB035

Credit Points: 8

Contact Hours: 3 per week

■ PUB485 OCCUPATIONAL HYGIENE 1

The field of occupational hygiene and the theory of occupational hygiene in the management of hazardous substances; the uses and limitations of a range of sampling and analytical equipment in the measurement and assessment of workplace particulates.

Course: PU44

Prerequisite: CHB242

Credit Points: 12

Contact Hours: 4 per week

■ PUB499 HEALTH INFORMATION MANAGEMENT 3

Health information systems outside acute care hospitals; special purpose health record systems, ambulatory health record systems, and those used in health care facilities other than acute care hospitals, systems for the registration and notification of disease and health problems, clinical classification systems other than ICD-9-CM and nomenclatures, which may be used in specialised health settings; concepts and processes of quality assurance in health (e.g. accreditation, criteria audits, etc.).

Course: PU48

Prerequisite: PUB399

Credit Points: 12

Contact Hours: 4 per week

■ PUB502 DERMATOLOGY

An appreciation of the many varieties of skin lesions and their particular relevance when found in the lower limbs. The lecture program consists of classification of skin disease, vascular reaction group, vasculitides, ulcers, peripheral vascular disease, tumours, eczema, dermatitis, allergy, immunity, infections, psoriasis, squamous eruptions, nails and hair, skin manifestations of internal disease, pharmacology and general therapeutics. The clinical sessions utilise this information in allowing stu-

dents the opportunity to see and diagnose many of these conditions.

Course: PU45

Prerequisites: PUB410, PUB421, PUB503

Credit Points: 8

Contact Hours: 3 per week

■ PUB503 PODIATRIC MEDICINE 3

Develops professional understanding of the general and specific effects of medical and surgical conditions on the human foot. Also expands the concept of total case management in terms of the interdisciplinary approach, including physical, mechanical and surgical techniques. Completion of this unit should enable students to consolidate the podiatrist's role in the health care team across the spectrum of practice.

Course: PU45

Prerequisite: PUB421

Corequisite: PUB504

Credit Points: 8

Contact Hours: 3 per week

■ PUB504 CLINICAL SCIENCE 3

On completion, the student should be able to consolidate skills acquired in operative mechanical, chemical and physical therapy and to demonstrate expertise in the treatment of the diabetic arthritic foot, and related circulatory and neurological disorders. Diagnostic skills are also developed with the wider range of patients being treated and the specialised study of disciplines such as dermatology and radiology, further integrating academic and clinical studies.

Course: PU45

Prerequisites: PUB404, PUB421

Corequisite: PUB304

Credit Points: 8

Contact Hours: 12 per week

■ PUB505 PODIATRIC SURGERY

Implementation of podiatric surgical techniques based on strong theoretical knowledge. On completion, students should understand the principles and techniques of lower limb surgery.

Course: PU45

Corequisite: PUB603

Credit Points: 8

Contact Hours: 3 per week

■ PUB512 ERGONOMICS 2

Application of industrial and organisation psychology to the industrial environment; examination of key individual, social and organisational factors contributing to health and safety at work; an appreciation of the interface between humans, machines and the environment, information processing and learning, stress, job design, job satisfaction and work schedules.

Course: PU44

Prerequisites: PUB483, SSB914

Credit Points: 12

Contact Hours: 4 per week

■ PUB513 EPIDEMIOLOGY & DISEASES

Enables students to become familiar with the terminology used in the epidemiology and the study of diseases; includes the conducting of various types of study including the analysis of data in the workplace; topics include: the causes and preventative factors of the most common non-infectious diseases, their incubation periods, modes of infection and transmission of infectious diseases, and the principles and applications of vaccination.

Courses: PU42, PU44, PU48

Credit Points: 12

Contact Hours: 4 per week

■ PUB516 OCCUPATIONAL HEALTH & SAFETY PRACTICE 1

Investigation of management principles and practices as they may be applied to resolve occupational health and safety problems; an examination of industrial relations processes and the legal framework within which occupational health and safety is addressed; field studies are used to provide students with a practical insight into the application of the principles to which they have been introduced.

Course: PU44
Prerequisites: MEB035, PHB404, PUB483
Corequisite: PUB485
Credit Points: 12 Contact Hours: 3 per week

■ **PUB518 FOOD HYGIENE STUDIES**

The various types of food poisoning; food poisoning investigation techniques; laboratory procedures and interpretation of results.

Course: PU42
Prerequisites: LSB431, PUB207, PUB478
Credit Points: 8 Contact Hours: 4 per week

■ **PUB520 ENVIRONMENTAL HEALTH MANAGEMENT 1**

Management of an environmental health unit; legal and professional procedures associated with the duties of environmental health officers.

Course: PU42 Prerequisites: PUB207, PUB481
Credit Points: 12 Contact Hours: 5 per week

■ **PUB528 HEALTH ADMINISTRATION PROJECT**

Enables students to do follow-up work of a practical nature in an area of interest to them. Before being admitted to this unit, students must have completed all the required coursework in the discipline area of the proposed project. Projects may be undertaken in any of the discipline areas covered by the degree, e.g. health economics, law, health finance, health information management, health management, statistics, epidemiology, either individually or in small groups. Projects must have prior approval and are closely supervised. Being of a practical nature, projects are undertaken in a health or medical care delivery setting, e.g. hospital medical record department; group practice; local authority health department, state health department.

Course: PU48 Credit Points: 12

■ **PUB529 HEALTH PLANNING & EVALUATION**

The concept and processes of program management; health planning in a program management context; issues relating to community participation in health planning, planning for accountability, planning for future evaluation, as well as the steps in program planning; resources management and health resource inventories; the rudiments of evaluation research applied to health programs.

Course: PU48
Credit Points: 12 Contact Hours: 3 per week

■ **PUB531 HEALTH CARE ECONOMICS**

Application of economic analysis to the health care industry; an examination of the demand for health care, the supply of and market for health care.

Course: PU48 Prerequisite: EPB150 or EFB104
Credit Points: 12 Contact Hours: 3 per week

■ **PUB533 INTERNATIONAL HEALTH CARE SYSTEMS**

Makes students aware of how different countries have organised their health delivery systems. The comparisons are historical and economic. An analysis is made of the growth of the welfare state in a number of countries, e.g. United Kingdom, USA, Sweden, Canada, with particular reference to the organisation and delivery of health services. International organisations working in health are studied. Students are introduced to the distribution of diseases in both the West and the Third World; the distribution of health and material resources; international agencies; aid programs and their roles; functions, effectiveness and coordination problems. Not offered in 1996.

Course: PU48
Credit Points: 12 Contact Hours: 3 per week

■ **PUB540 THE HOME ECONOMIST AS A COUNSELLOR**

The counselling process; major approaches to counselling; models of helping and the helping relationship; communication skills; the home economist as counsellor; moral, ethical and legal responsibility of the home economist as a helping professional.

Course: PU49
Prerequisites: PUB574, SSB961 or equivalent
Credit Points: 12 Contact Hours: 3 per week

■ **PUB552 NUTRITION ISSUES IN AUSTRALIA**

Evaluation of nutritional information; psychology of food; methods of assessing nutritional status; nutritional disorders; community, remedial and nutrition education programs.

Courses: ED50, PU49
Prerequisite: PUB319 or equivalent
Credit Points: 12 Contact Hours: 4 per week

■ **PUB556 FOOD PRESENTATION & PROMOTION**

Advanced techniques and complex skills of food production and presentation; commercial production and presentation of food; production and presentation of food for photography or display purposes; food demonstrations; special occasion cookery.

Course: PU49 Prerequisite: PUB474 or equivalent
Credit Points: 12 Contact Hours: 6 per week

■ **PUB572 APPAREL DESIGN 1**

Factors influencing garment and household goods designs; design development; yarn structure; techniques of fabric construction and decoration; the textile industry.

Course: PU49 Prerequisite: PUB272 or equivalent
Credit Points: 12 Contact Hours: 4 per week

■ **PUB574 HOME ECONOMICS 3**

The family as a social system; resources and constraints related to the life cycle; management in the family context; the family in Australia; managing finance.

Course: PU49 Prerequisite: PUB272 or equivalent
Credit Points: 12 Contact Hours: 3 per week

■ **PUB575 HOME ECONOMICS PRACTICUM**

Experience in working in industry, commerce or government; placement in a number of organisations for 10 weeks.

Course: PU49 Prerequisite: COB160 or equivalent
Credit Points: 12

■ **PUB580 HEALTH ADMINISTRATION FINANCE**

Fund/accrual accounting; financial administration in Commonwealth and state government; financial management in the health industry; financial analysis; planning and budgeting, working capital management in the health industry; health care performance and evaluation.

Course: PU48
Credit Points: 12 Contact Hours: 3 per week

■ **PUB582 APPAREL DESIGN 2**

The design and production of a range of apparel suitable for a specific client group, for example, corporate wear; department store; large mass market; detailed research of client needs, textile specification and evaluation and costing; develops to an advanced level knowledge, understanding and processes established in PUB572.

Course: PU49 Prerequisite: PUB572
Credit Points: 12 Contact Hours: 4 per week

■ **PUB585 OCCUPATIONAL HYGIENE 2**

Continuation of PUB495; concentrates on the application of the principles to which the student has already been introduced; extends the student's ability to recog-

nise, evaluate and suggest the most efficient control strategies for physical and chemical hazards in the working environment; examines the elements of successful monitoring programs in the workplace.

Course: PU44

Prerequisites: CHB411, LSB431, PUB482, PUB485
Credit Points: 12 Contact Hours: 4 per week

■ PUB590 PRODUCT DEVELOPMENT & MARKETING

The consumer market; product development; critical path analysis and network planning; idea generation and product evaluation; feasibility study and product cost analysis; quality assurance; the production and marketing of products; career prospects.

Course: PU49 Prerequisites: PUB478 or equivalent
Credit Points: 12 Contact Hours: 3 per week

■ PUB592 HOME ECONOMICS INDEPENDENT STUDY 1

Self-initiated and self-directed academic study in an interest area consistent with the course's overall aims.

Course: PU49

Credit Points: 12 Contact Hours: 1 per week

■ PUB594 HOME ECONOMICS INDEPENDENT STUDY 2

Self-initiated and self-directed academic study in an interest area consistent with the course's overall aims.

Course: PU49

Credit Points: 12 Contact Hours: 1 per week

■ PUB600 HEALTH MANAGEMENT 1

A problem-solving approach which relates the science of management to decision making and control in health services administration. Management science (operations research) techniques are learned and applied in case studies from the health industry.

Course: PU48 Prerequisites: 16 units in PU48
Credit Points: 12 Contact Hours: 3 per week

■ PUB602 SPORTS MEDICINE

The importance of a multidisciplinary approach to the diagnosis, evaluation and treatment of sports injuries. Students study the symptomology of lower limb functional pathologies as related to specific sports and devise treatment programs. An understanding of the principles of human fitness and potential in relation to athletic injuries and expectations forms the foundation for further studies.

Course: PU45 Prerequisites: PUB503, PUB410
Corequisite: PUB411

Credit Points: 8 Contact Hours: 3 per week

■ PUB603 CLINICAL SCIENCE 4

Prepares the student for the transition to private practice. Students are introduced to the sports medicine patient in terms of the range of injuries which occur affecting the lower back, hip, knee, ankle and foot. Case presentations are an integral part of clinical learning and sessions conclude with exchange between students and staff over case management.

Course: PU45

Prerequisite: PUB504
Credit Points: 8 Contact Hours: 12 per week

■ PUB610 PROJECT & PROFESSIONAL MANAGEMENT

This unit explains firstly how a professional practice may be set up and how a small practice can operate as a business enterprise. Methods of budgeting, finance and control are explained. Secondly it develops an interest in podiatry research using scientific methods of investigation and presentation. Students are encouraged to publish these projects as original material in related professional journals.

Course: PU45

Credit Points: 8 Contact Hours: 3 per week

■ PUB611 HAZARD ASSESSMENT & MANAGEMENT

Enhances skills in risk management; risk communication; workplace auditing; investigation, analysis and reporting of accidents.

Course: PU44

Credit Points: 12 Prerequisite: PHB404
Contact Hours: 4 per week

■ PUB612 HEALTH PROMOTION & EDUCATION

The scope and nature of health promotion; use of resources for such activities; planning, conduct and evaluation of health promotion programs; adult learning principles; training needs analysis; training program development and evaluation; specific training methods.

Courses: PU44, PU42 Prerequisite: SSB914
Credit Points: 8 Contact Hours: 3 per week

■ PUB613 OCCUPATIONAL HEALTH & SAFETY PRACTICE 2

Experience working in industry, commerce or government; placement in an organisation one day per week; ethics; professional practice; current issues.

Course: PU44

Prerequisite: PUB516
Credit Points: 8 Contact Hours: 2 per week

■ PUB614 INDUSTRY SPECIALISATION

The hazards associated with particular industries including construction, manufacturing, chemical and mining through field trips and specialist lectures; the various laws and standards that apply to these industries and an investigation of the control strategies applicable to the management of hazards in industry; introduction to the principles of workplace rehabilitation.

Course: PU44

Prerequisite: PUB516
Credit Points: 8 Contact Hours: 4 per week

■ PUB617 OCCUPATIONAL HEALTH & SAFETY PROJECT

Through independent work under the guidance of supervisors, students learn to appreciate the connection between their theoretical studies and practical aspects of environmental health. Practice is gained in research techniques, logical reasoning and presentation of research findings.

Course: PU44

Prerequisites: PUB512, PUB513, PUB585

Credit Points: 12 Contact Hours: 3 per fortnight

■ PUB618 HEALTH COMPUTER SYSTEMS

Principles and applications of electronic data processing in health care settings. Computerised health information systems are analysed from a variety of viewpoints including the objectives of the system, specific methods employed to meet user needs, structure in an overall information system, the technology which makes it operative, the data base, and the various ways information is transferred and used in health facilities.

Course: PU48

Prerequisite: ISB892 or BSB112
Credit Points: 12 Contact Hours: 4 per week

■ PUB619 HEALTH INFORMATION MANAGEMENT 4

The role and function of the health information manager in the management of health care services; the principles and processes of management as applied to health information services; current issues in health information management.

Course: PU48

Prerequisites: PUB499, PUB456
Credit Points: 12 Contact Hours: 4 per week

■ PUB620 ENVIRONMENTAL HEALTH MANAGEMENT 2

Integration of the student's theoretical understanding of physical and biological sciences and application of such to the management of a range of environmental health

problems encountered in the professional practice of an environmental health officer.

Course: PU42 **Prerequisites:** PUB520, PUB481

Corequisite: PUB481

Credit Points: 12 **Contact Hours:** 6 per week

■ PUB621 ENVIRONMENTAL HEALTH PRACTICE

Visits to all types of establishments in environmental health management, pollution sciences and food studies for the purpose of practical demonstration, evaluation and professional experience.

Course: PU42 **Prerequisites:** PUB481, PUB520

Corequisite: PUB620

Credit Points: 12 **Contact Hours:** 6 per week

■ PUB622 ENVIRONMENTAL HEALTH PROJECT

Through independent work under the guidance of supervisors, students learn to appreciate the connection between their theoretical studies and practical aspects of environmental health. Practice is gained in research techniques, logical reasoning and presentation of research findings.

Course: PU42 **Prerequisites:** PUB520, LSB408

Credit Points: 8 **Contact Hours:** 4 per week

■ PUB631 NUTRITIONAL BIOCHEMISTRY

The digestion, absorption and metabolic assimilation of nutrients; hormonal control of metabolism; the role of drugs; genetic and environmental influences; significant parameters measured in clinical laboratories examined in a variety of health and disease states; diet and exercise for health; starvation; obesity; diabetes mellitus; cardiovascular disease; renal disease; liver disease; alcohol consumption; physiological and traumatic stress.

Course: SC30 **Prerequisites:** LSB408, PUB405

Credit Points: 12 **Contact Hours:** 5 per week

■ PUB634 HEALTH SERVICES EVALUATION

A study of process evaluation, program evaluation and evaluation research with applications to the health field; designed for health professionals in both the administration and practice areas. Theory, practice, the utilisation of evaluation results and the administration of evaluation studies are emphasised in this unit. Addresses topics such as quality assurance, utilisation, review and accreditation. This unit has been superseded but may be offered for the last time in 1996, subject to student numbers.

Course: PU48 **Prerequisite:** PUB646

Credit Points: 12 **Contact Hours:** 3 per week

■ PUB651 CASEMIX MANAGEMENT

History and development of casemix classification systems; structure of AN-DRGs; casemix applications in quality improvement, utilisation review, costing, planning and management; casemix and funding health care services; casemix classification systems for acute in-patients; data quality issues; casemix grouping software; current casemix initiatives and applications.

Course: PU48

Credit Points: 12 **Contact Hours:** 3 per week

■ PUB653 PROFESSIONAL EXPERIENCE

This unit provides an opportunity to increase knowledge and level of understanding of health information management in health care facilities through direct observation and participation. The managerial role of the health information services with medical, administrative and allied health professionals; reinforcement of clinical classification skills by coding from medical records.

Course: PU48

Prerequisites: PUB356, PUB399, PUB456

Corequisite: PUB499

Credit Points: 12 **Contact Hours:** 6 per week

■ PUB655 HEALTH POLICY AND PLANNING

How health policy is created; the role of vested interests; the role of the mass media; an appreciation of the difference between policy in use and espoused policy; analysis of health policy using analytical frameworks; health policy impact; policies pertaining to special groups.

Course: PU48

Credit Points: 12 **Contact Hours:** 3 per week

■ PUB657 HUMAN RESOURCES IN HEALTH

The development of skills in human resource management in the health care industry. Topics include: human resource needs analysis; human resource planning; supply and demand of health personnel; recruitment, selection and training of health personnel; job descriptions; industrial relations in the health industry; health worker performance and job satisfaction; health teams and multi-skilling; leadership and management in the health industry. Not offered in 1996.

Course: PU48 **Prerequisite:** HRB131 or MGB207

Credit Points: 12 **Contact Hours:** 3 per week

■ PUB659 MANAGEMENT OF HEALTH SERVICES

This unit represents the capstone core unit for both the Health Administration and Health Information Management majors. This unit will exercise the 'manager' in the student and prepare them for middle and senior level management positions. Topics include: SWOT analysis; vision, mission and culture; stakeholder analysis and achieving win-win negotiations; thinking strategically; best practice and benchmarking in health.

Course: PU48

Prerequisites: 16 units in the Health Administration or HIM major

Credit Points: 12 **Contact Hours:** 3 per week

■ PUB674 BUSINESS ORGANISATIONS

The structure of business organisations; types of organisations; business objectives, strategies and policies; functions within business organisations; the role of unions and the nature of industrial relations in Australia; women's issues.

Course: PU49 **Prerequisites:** PUB272 or equivalent

Credit Points: 12 **Contact Hours:** 3 per week

■ PUB675 HOME ECONOMICS 4

The conceptual, theoretical and philosophical foundations of home economics; societal issues relating to the provision of food, textiles and shelter; a critical examination of social, economic, technological and ethical issues on individual and family wellbeing.

Course: PU49

Prerequisite: PUB574

Credit Points: 12 **Contact Hours:** 3 per week

■ PUB695 INDUSTRIAL TRAINING EXPERIENCE

Ten to twelve-month placement in paid employment related to the Bachelor of Applied Science (Occupational Health and Safety) under the joint supervision of an industry supervisor and an academic adviser. The academic adviser obtains reports from the student and their work supervisor at regular intervals. The student is required to complete a progressive assessment program. Results are determined on the basis of reports, continuous assessment and the employer's report.

Course: PU44

Prerequisites: Satisfactory completion of the first two years (96 credit points) of the Bachelor of Applied Science (Occupational Health & Safety), normally with a GPA of not less than 4.5 overall

Credit Points: 20

■ PUN600 DISSERTATION

Undertaken by full-time Master of Public Health students

following successful completion of coursework. This unit is intended as a practicum, offering experience in investigating and/or solving a public health problem.

Course: PU85 Credit Points: 48

■ PUN601 CONTEMPORARY HEALTH POLICIES

An examination of the social, political, geographical and economic factors which have shaped the organisation of health care services at local, state, national and/or international levels; funding and resource management; the level and nature of responsibility for health care and health care maintenance; planning for structural change.

Courses: HL88, IF64, LS85, NS62, NS85

Credit Points: 12 Contact Hours: 3 per week

■ PUN602 HEALTH PLANNING, MANAGEMENT & EVALUATION

Application of the theory and principles of planning, management and evaluation to health services; a detailed analysis of health services planning techniques; information requirements and decision making for the strategic management of health services; the principles of financial and personnel management required for the effective development and utilisation of health care; process and program evaluation in health services; the appreciation of evaluation research and cost-effectiveness.

Courses: HL88, LS85, NS85

Credit Points: 12 Contact Hours: 3 per week

■ PUN607 DISSERTATION

Undertaken by part-time Master of Public Health students following successful completion of coursework. The unit is intended as a practicum, offering experience in investigating and/or solving a public health problem.

Course: PU85 Credit Points: 48

■ PUN608 HEALTH ECONOMICS & FINANCE

This subject is designed to introduce students to some elementary microeconomic theory and its application to economic issues in the health sector. Aspects of health care financing are discussed in the context of their impact upon the market for health care services in Australia and abroad. Some fundamental principles of public finance are also addressed.

Courses: HL88, IF64, PU85, PU60, HL68

Credit Points: 12 Contact Hours: 3 per week

■ PUN609 HEALTH CARE FINANCE

The financial management aspects of health care delivery in Australia; sources of finance at federal, state and local government levels; priority setting; budgetary processes; responsibilities for provision of various services.

Courses: HL68, HL88, IF64

Credit Points: 12 Contact Hours: 3 per week

■ PUN610 HEALTH SERVICES

MANAGEMENT

This subject is designed to assist health service managers to understand their roles, duties and responsibilities and to investigate relevant rules, principles, models, or modus operandi that may be available to guide their actions. It reviews some of the classical and more modern approaches to management and examines their relevance and application in the management of health services. In this way the health service manager's role and responsibility should become clear. Some guiding principles will emerge from which the manager can select, depending on the circumstances and type of the decision required.

Courses: HL88, IF64, NS85, PU85, PU60, HL68

Credit Points: 12 Contact Hours: 3 per week

■ PUN611 COMMUNITY HEALTH PLANNING

This subject deals with the principles and methods of planning for health development in the community. It

explores a number of models of health planning and the role of key groups and decision-makers in developing plans. Community participation and empowerment is discussed together with constraints and feasibility associated with health planning. The subject examines, using a social and economic development perspective, the complex relationships between communities, health, planning and evaluation. The contribution of a range of disciplines is explored, as well as the importance of resources and information. It is essentially a practical course which introduces principles and theory at appropriate points. Students are required to produce a Health Plan which is applicable to the health related organisations and structures in Queensland.

Courses: PU85, PU60

Credit Points: 12 Contact Hours: 3 per week

■ PUN612 ADVANCED HEALTH EVALUATION

This subject deals with the principles, methods and problems of evaluation in the health sector, and in particular as they apply to public health programs and to the effectiveness of the health services generally. It is designed to equip the public health worker with the knowledge, confidence and skills to initiate a piece of evaluation research. A problem solving approach is adopted throughout the course.

Courses: IF64, PU85, PU60

Credit Points: 12 Contact Hours: 3 per week

■ PUN613 HEALTH PROMOTION PLANNING & EVALUATION

This subject covers the nature and the scope of health promotion program planning and evaluation from an examination of international and national public health and health promotion policy guidelines and frameworks, including National Goals and Targets for Health, as well as regional and local government initiatives to promote the health of the population. Public health practitioners are likely to be engaged in the development, implementation and evaluation of health promotion programs to meet the needs of a diverse range of population groups. This subject engages practitioners in an analysis of the theoretical principles of program planning and evaluation, and their application in practice. It is designed to enhance student skills in the development, implementation and evaluation of health promotion programs.

Courses: IF64, HL88, PU85, PU60

Credit Points: 12 Contact Hours: 3 per week

■ PUN617 ENVIRONMENTAL HEALTH MANAGEMENT 1

This subject considers environmental health management as an important component in resolving health threatening hazards in the community. Topics include: history of environmental and community health and the approaches to preventive health including the 'old' and 'new' public health; the concepts of environmental health and the reduction of life threatening hazards in the community; the legal system and its approach to environmental legislation and environmental health legislation; a critical review of existing legislation and its effectiveness; the administrative system and political system and the role of government in formulating public health policy and its effect on environmental health decision making; the relevance of the structure and function of the Commonwealth, State and Local Government of Australia for environmental health programs; the professional role of environmental health officers and a detailed analysis of Acts, regulations and policies relevant to environmental health.

Courses: HL88, PU85, PU60, HL68

Credit Points: 12 Contact Hours: 3 per week

■ PUN618 ENVIRONMENTAL HEALTH MANAGEMENT 2

This unit builds on PUB617 and considers other relevant environmental health management issues which are an important component in resolving health threatening hazards in the community. Topics include: management principles, including the functions of planning, leading, controlling and coordinating in the environmental health setting; budgeting formats at all levels of government, including fiscal arrangements for public health policy initiatives; assessment of risk and environmental health policy delivery; modelling processes to calculate the best alternative for policy delivery; survey methodology and data collection and presentation to improve decision making in environmental health; a review of computer software to enhance decision making and office management systems and record and monitor legislative requirements in environmental health.

Course: HL88, HL68

Credit Points: 12 Contact Hours: 3 per week

■ PUN619 ENVIRONMENTAL HEALTH 1

Considers land as a major component of the environment and as a finite resource which must be properly managed to ensure continued health and well-being for individuals and communities. Examines land as a resource; management strategies and adverse pressures on this component of the environment. Adverse impacts considered include solid and hazardous waste generation and disposal, land contamination and strategies for prevention and management.

Course: HL88, HL68

Credit Points: 12 Contact Hours: 3 per week

■ PUN620 ENVIRONMENTAL HEALTH 2

This unit considers water and atmosphere as finite resources which must be properly managed to ensure continued health and well-being for individuals and communities. It examines water and atmosphere as resources, management strategies and adverse pressures on these components of the environment. Adverse impacts resulting from various forms of pollution and use are considered together with strategies for prevention and management of such issues.

Courses: HL88, HL68

Credit Points: 12

■ PUN622 CLOTHING: THE HUMAN CONSTRUCTED ENVIRONMENT

Clothing has physiological, psychological and sociological connotations that affect the self-image and the social relationships of all people. For those who deviate from the norms, the physically disabled, the chronically ill, the mentally handicapped, the visually impaired, and those with extreme problems of weight and stature, these connotations become more important. In this unit of study the requirements of specific target groups are investigated and students will then be challenged to meet their needs through functional clothing design.

Courses: HL88, HL68

Credit Points: 12 Contact Hours: 3 per week

■ PUN623 HOME ECONOMICS, THE FAMILY & THE POLITICS OF FEMINISM

Theories of family and the politics of feminism are investigated and the relationship between family and feminist thought are juxtaposed. Topics include: contextualising the study of feminism and the family in home economics; what is family?; sociology of the family; the family in Australia; history of feminist thought and current feminist thinking; feminism in Australia; critique of feminism; which way feminism?; feminism and the family; feminism and home economics; well-being of individuals and families – what does it mean?

Courses: ED13, HL88, HL68

Credit Points: 12 Contact Hours: 3 per week

■ PUN624 HOME ECONOMICS FOOD & NUTRITION

A significant factor influencing food patterns is the changing food market with concomitant political, psychosocial, economic, technical and ethical aspects affecting the supply of food to the consumer. Students are directed to research nutritional practices, and to uncover the factors influencing such practices. This research will then form the basis for not only developing strategies for individuals accepting responsibility for their own food-related experiences, but also for examining critically existing nutrition education programs and recommended nutrition goals and guidelines. Topics include: the individual; the food supply; nutritional science; nutrition education.

Courses: HL88, HL68

Credit Points: 12 Contact Hours: 3 per week

■ PUN625 HOME ECONOMICS PHILOSOPHICAL FOUNDATIONS

An examination of relevant political, social, economic, technological and ethical issues which influence the well-being of individuals and families. Topics include: what is home economics?; societal issues; implications for home economics praxis; developing a personal philosophy of home economics.

Courses: ED13, HL88, HL68

Credit Points: 12 Contact Hours: 3 per week

■ PUN626 HOME ECONOMICS FIELD STUDY

Enables students to develop an area of their own choosing and to explore this in depth. The format and content of the program are negotiated between student and lecturer. However it is intended that the focus of the study be investigating home economics theory and practice within the school and/or community setting. Possible areas of study might include: education issues for home economics; home economics and feminism; family studies; human development; human relationships; food and nutrition; textiles; shelter; consumerism; management; design; environmental issues; technology. Areas available are determined by the expertise and research interests of the staff.

Courses: HL88, HL68

Credit Points: 12 Contact Hours: 3 per week

■ PUN627 ADVANCED PHARMACOLOGY

Topics include: an in-depth study of drugs relevant to podiatric practice; including their actions, indications, contraindications, adverse reactions, drug interactions and dosages; indications and contraindications and adverse effects of the use of antibiotics, sedatives, NSAIDs analgesics, corticosteroids, epinephrine in relevant local anaesthetics; the actions of systemic drugs on the nervous system, cardiovascular, endocrine and musculo skeletal systems; prescription writing and drug regulations.

Courses: HL88, HL68

Credit Points: 12 Contact Hours: 3 per week

■ PUN628 CLINICAL PATHOLOGY & DIAGNOSIS

Provides students with advanced clinical management skills commensurate with the Master's Degree level of education: an important practical adjunct to the theoretical concepts of clinical pathology and associated diagnostic techniques; gives the podiatrist the opportunity to apply acquired knowledge in a supervised clinical environment facilitating a comprehensive approach to the evaluation and treatment of foot pathology in the community; students undertake the management of patients attending the QUT clinical facility.

Courses: HL88, HL68

Credit Points: 12 Contact Hours: 3 per week

■ PUN629 GENERAL MEDICINE

Provides an advanced level of knowledge necessary for a holistic medical approach to the management of disease processes. The relationship between pathogenesis and advanced therapeutic treatment is explored; designed to enhance the theoretical and clinical knowledge gained from the advanced pharmacology and clinical pathology/diagnosis units. Topics include: haematopoietic and lymphoid system; immune system; endocrine system; musculoskeletal system; hereditary and genetic; nervous system; cardiovascular system; gastrointestinal system; the liver, the biliary tract and the pancreas; respiratory system; the renal system.

Courses: HL88, HL68

Credit Points: 12 Contact Hours: 3 per week

■ PUN630 COMPUTERISED GAIT ANALYSIS

Students have the opportunity to further their study and understanding of human movement and gait analysis; and to enhance their clinical biomechanical assessment of a patient, thus allowing for better evaluation and treatment regimes. This is achieved using computerised video motion assessment and foot force assessment systems. Particular emphasis is directed to providing the student with the opportunity of applying this information to specialised areas of podiatric sports medicine.

Courses: HL88, HL68

Credit Points: 12 Contact Hours: 3 per week

■ PUN631 PODIATRIC SURGERY

Introduces professionals to the more technical aspects of foot surgery. It deals with pre-operative planning of procedures as well as post-operative complications. By the end of the unit students will gain sufficient knowledge to be able to make informed referrals to those qualified to perform appropriate procedures.

Courses: HL88, HL68

Credit Points: 12 Contact Hours: 3 per week

■ PUN641 CLINICAL DATA MANAGEMENT

Development of skills in data management systems and techniques used in clinical trials and epidemiological research. Methods of collecting and organising clinical data for research purposes; organisation of clinical trials; protocol design and interpretation; quality control and maintaining the integrity of trials; software applications for clinical data management; presentation skills in data management. Offered in 1996 subject to sufficient student numbers.

Courses: HL88, HL68

Credit Points: 12 Contact Hours: 3 per week

■ PUN642 CLASSIFICATION & CASEMIX IN HEALTH

The use of classification systems in health services and their applications; statistical classifications (such as ICD) and nomenclatures (such as SNOMED); specialist classification systems for different health care settings (e.g. hospitals, ambulatory care, general practice); the development, application and use of casemix classification systems, especially AN-DRGs. Offered in 1996 subject to sufficient student numbers.

Courses: HL88, NS62, NS85, HL68

Credit Points: 12 Contact Hours: 3 per week

■ PUN643 HEALTH INFORMATICS

The use of information technology in health services; computers, telecommunications and electronic storage systems (such as optical disk); technical, financial, human resource management and legal issues associated with the use of health informatics; applications for health authorities, hospitals, other health institutions and private practice. Field trips are included. Offered in 1996 subject to sufficient student numbers.

Courses: HL88, NS64, NS85, HL68

Credit Points: 12 Contact Hours: 3 per week

■ PUN644 CASE STUDIES IN HEALTH INFORMATION MANAGEMENT

Either individually or in groups, students analyse case studies, assess the situation and propose a solution or alternative solutions. The case studies are based on recent or current situations in local health care settings. Offered in 1996 subject to sufficient student numbers.

Courses: HL88, HL68

Credit Points: 12 Contact Hours: 3 per week

■ PUN692 HEALTH CARE DELIVERY SYSTEMS

This subject offers an overview of health care delivery systems, examining the context in which public health operates in Australia. It is an introduction to the health administration branch of public health, being concerned with the coordination of human, physical, financial and information resources at all levels, including international, national, state, regional, community, facility and program levels. Health care delivery is examined from an organisational perspective in its ability to solve existing problems, to prevent future problems, and to promote good health.

Courses: IF64, PU60

Credit Points: 12 Contact Hours: 3 per week

■ PUN696 AN INTRODUCTION TO HEALTH PROMOTION

This subject introduces students to the discipline of health promotion, an essential component of study for students of public health. It places health promotion, and provides an overview of its role, within the context of public health. Provides a critique of the relationship between health promotion and contemporary public health, including health policy formation. Outlines the theories and principles underpinning health promotion, enabling students to evaluate the relationship between theory and practice. Provides a broad overview to policy formation, placing it within the social, environmental and economic policy context, and introducing students to health public policies advocacy and lobbying, as well as to social and organisational concepts and strategies. Overviews health promotion planning, implementation and evaluation, and enables students to critique the processes concerned through case study analysis.

Courses: PU85, PU60

■ PUP007 SOCIAL & BEHAVIOURAL EPIDEMIOLOGY

This subject focuses on the relationship between the determinants of health risk behaviour and health or disease outcomes.

Knowledge and skills of descriptive and analytical methodological approach gained in the Core subject "An Introduction to Epidemiology & Biostatistics" will be developed further in this subject to provide an understanding of the social and behavioural factors influencing health status and the risk of disease; an understanding of theoretical models which may be used to describe both the development of and changes in health behaviours; and a framework for population health interventions. It will also enable students to become familiar with national and international population research studies and interventions which focus on the relationship between behavioural and social factors and health outcomes; to develop critical and objective analytical skills in relation to social and behavioural epidemiology data and its application to the process of promotion of health and preventing disease; and to utilise both epidemiological information and appropriate models of intervention in

the development of health promotion interventions. Skills enabling critical and objective analysis of social and behavioural epidemiological data and its application to the process of promotion of health and preventing disease will be developed as will be the ability to utilise both epidemiological information and appropriate models of intervention in the development of health interventions.

Courses: HL88, PU69, PU85, PU60

Credit Points: 12 **Contact Hours:** 3 per week

■ **PUP010 HEALTH IN AUSTRALIAN SOCIETY**
Addresses significant issues associated with the multifactorial relationships between health and social, economic, political and lifestyle factors. Examination of the structure of Australian society as it impacts on health; patterns of mortality and morbidity and the nature and extent of health care delivery systems.

Courses: HL88, IF64, PU65, PU69, HL68

Credit Points: 12 **Contact Hours:** 3 per week

■ **PUP012 PROGRAM EVALUATION**

An introduction to the role of evaluation in a broad range of health education and promotion contexts. The unit focuses on the development of skills in program evaluation, skills to analyse and interpret current evaluation literature and the development of evaluation proposals.

Course: PU69

Credit Points: 12 **Contact Hours:** 3 per week

■ **PUP014 SCHOOL HEALTH EDUCATION**

Introduction to the field of school health education. Focuses on the nature, scope and place of school health education in the total school environment; major issues facing schools and educators involved in developing and implementing school health education; structural and organisational factors impacting on program development.

Courses: HL88, PU69

Credit Points: 12 **Contact Hours:** 3 per week

■ **PUP018 HEALTH PROMOTION STRATEGIES**

Examines and analyses the process of selection and implementation of appropriate strategies for promoting health; a broad range of theories, methods and strategies for improving health across a range of settings.

Courses: HL88, PU69, NS64, NS85

Credit Points: 12 **Contact Hours:** 3 per week

■ **PUP021 CASE STUDIES ON CONTEMPORARY HEALTH ISSUES**

Focuses on current issues facing practitioners in health education and promotion. Includes critical analysis of strategies and policies designed to address contemporary health issues and encourages students to become informed and critical practitioners.

Courses: HL88, NS64, NS85, PU69

Credit Points: 12 **Contact Hours:** 3 per week

■ **PUP022 HEALTH PROMOTION CONCEPTS & POLICY: A CRITICAL ANALYSIS**

Essential advanced study for practitioners engaged in the application of health promotion strategies. Acknowledges the importance of knowledge and skills to reduce behavioural risks; however, it emphasises the significant strategies and policies of health promotion including healthy public policy, social view of health, laws and regulations and leadership and advocacy.

Courses: HL88, IF64, PU69

Credit Points: 12 **Contact Hours:** 3 per week

■ **PUP023 PROGRAM PLANNING IN SCHOOL & COMMUNITY HEALTH**

Major components of health education and health promotion: the planning and implementation of interven-

tion strategies and comprehensive programs. Provides a conceptual synthesis of the foundation of health education and promotion and analyses models of program planning and evaluation.

Courses: HL88, PU69

Credit Points: 12 **Contact Hours:** 3 per week

■ **PUP024 FOUNDATIONS OF HEALTH EDUCATION**

Introduction to the theoretical and practical dimensions of health education as a major component of the process of health promotion. This unit introduces knowledge, skills and practices necessary to implement health education strategies.

Courses: HL88, PU62, PU69

Credit Points: 12 **Contact Hours:** 3 per week

■ **PUP025 COMMUNITY HEALTH PROMOTION**

The field of health education and health promotion specifically focusing on the nature of the community health and environment promotion; examines the environmental, social and educational elements supporting and encouraging behaviours conducive to health.

Courses: HL88, PU69, NS85

Credit Points: 12 **Contact Hours:** 3 per week

■ **PUP027 INDEPENDENT STUDY**

Research work in an area of personal or professional interest to the student in the health sciences. The focus may be one of specific content area or process in health education or health promotion. Involves liaison with academic adviser.

Course: PU69

Credit Points: 12

■ **PUP109 NUTRITION**

A comprehensive study of the nutritional sciences building on students' backgrounds in physiology, biochemistry and nutrition. Topics include: food composition databases; food commodities; factors affecting food choice; factors affecting access to food; barriers within Australia; public health nutrition; food grouping systems; dietary guidelines and the food needs of various groups in the community.

Course: PU62

Credit Points: 12 **Contact Hours:** 5 per week

■ **PUP110 NUTRITIONAL EPIDEMIOLOGY**

Statistics; validity; reliability; assessing nutritional studies; data management; interpretation of results. During the semester students have the opportunity to gather data, statistically analyse and assess the data, draw conclusions and construct a written report of the results. Students also learn to use computers to carry out basic statistical and dietary analyses.

Course: PU62

Credit Points: 12 **Contact Hours:** 5 per week

■ **PUP115 OCCUPATIONAL HEALTH & SAFETY LAW & MANAGEMENT 1**

Introduces students to basic concepts in occupational health and safety; develops an understanding of and skills not only in basic management principles as they apply to this discipline but also in the development and delivery of health and safety training programs. Develops a sound foundation in the principles and practice of health promotion.

Courses: PU65

Credit Points: 12 **Contact Hours:** 3 per week

■ **PUP116 ERGONOMICS**

The relationship between the worker, the work environment and the workspace. Occupational ill-health and injury arise from a lack of fit between the capabilities of workers and the design of the working environment, the work processes and the physical and mental demands of

the task. Insight into ergonomics can assist practitioners to enhance the worker's safety and comfort, improve work efficiency and performance, and optimise work performance. Topics include: basic anatomy and physiology of body systems; occupational biomechanics; psychology.

Courses: HL88, PU65

Credit Points: 12 **Contact Hours:** 3 per week

■ **PUP122 PRACTICE IN CLINICAL DIETETICS**

Practical experience and seminar presentations relevant to clinical dietetics conducted in institutions off-campus (40 hours per week for 11 weeks).

Course: PU62

Prerequisites: Completion of all Semester 1 and Semester 2 units

Credit Points: 24 **Contact Hours:** 11 weeks

■ **PUP123 PRACTICE IN COMMUNITY NUTRITION**

Students gain experience in the nutrition and health care of individuals and groups in the community through off-campus practice (40 hours per week for 3 weeks).

Course: PU62

Prerequisites: Completion of all Semester 1 and Semester 2 units.

Credit Points: 12 **Contact Hours:** 4 weeks

■ **PUP126 CLINICAL DIETETICS 1**

The dietetic process; the gathering of information using dietary histories; anthropometry; biochemical indices. Builds on basic studies in nutrition; biochemistry and physiology; integrates medical, biochemical and dietary aspects of inborn errors of metabolism, energy imbalances, cardiovascular disorders and metabolic disorders. As part of the unit, students are required to attend various hospitals and other locations to interact with clients and others.

Course: PU62

Corequisites: PUP109, PUP110

Credit Points: 12 **Contact Hours:** 5 per week

■ **PUP127 CLINICAL DIETETICS 2**

This is a continuation of PUP126. Topics include: nutritional assessment; the management of disorders of the digestive and immune systems; renal disease; liver disease; paediatric disorders; nutritional support and hypermetabolic conditions. Students are required to undertake various visits to hospitals and other locations to interact with clients and others.

Course: PU62

Prerequisite: PUP126

Corequisite: PUP128

Credit Points: 12 **Contact Hours:** 5 per week

■ **PUP128 PRACTICAL DIETETICS**

Provides an opportunity to experiment with food commodities and to practise service planning, and food presentation. Examines the ingredient content of commercial foodstuffs. Examines the role of individual ingredients of foodstuffs in the determination of food structure and organoleptic properties.

Course: PU62

Prerequisite: PUP126

Corequisite: PUP127

Credit Points: 12 **Contact Hours:** 5 per week

■ **PUP129 FOOD SERVICE & DIETETIC MANAGEMENT**

An introduction to the principles of management including general management theory; organising functions; leadership; staffing; management of change; marketing the profession. This is applied to food service management in terms of planning and organising food service; menu planning; kitchen design; food delivery systems; computer assistance and total quality management. Field trips to visit various food services.

Course: PU62

Credit Points: 12

Contact Hours: 5 per week

■ **PUP132 PRACTICE IN FOOD SERVICE MANAGEMENT**

Practical experience and seminar presentations. Conducted in institutions off-campus (40 hours per week for 4 weeks).

Course: PU62

Prerequisites: Completion of all Semester 1 and Semester 2 units

Credit Points: 12

Contact Hours: 3 weeks

■ **PUP140 COMMUNICATION THEORY & PRACTICE FOR HEALTH PROFESSIONALS**

Provides health professionals with skills in communication. Covers communication between clients and health professionals on a one-to-one basis; communication in small groups; public education on health-related matters; diffusion and adoption of health-related behaviours; the role of information; the use of mass media; and communication within health organisations, i.e., between health educators and promoters and other health professionals.

Courses: HL88, PU62, NS85

Credit Points: 12

Contact Hours: 3 per week

■ **PUP215 OCCUPATIONAL HEALTH & SAFETY LAW & MANAGEMENT 2**

Students develop an understanding of both the legal framework within which the discipline operates and industrial relations concepts and practices insofar as they impinge upon occupational health and safety. Basic statistical techniques are reviewed as an introduction to the study of concepts of epidemiology applicable to an occupational setting.

Courses: HL88, PU65

Credit Points: 12

Contact Hours: 3 per week

■ **PUP250 OCCUPATIONAL HYGIENE**

Lectures, practical work and industrial visits to instruct students so that they may recognise, evaluate and control the physical, biological and chemical environmental factors which can adversely affect the health, safety, comfort and efficiency of workers.

Courses: HL88, PU65

Credit Points: 12

Contact Hours: 3 per week

■ **PUP301 SAFETY TECHNOLOGY & PRACTICE 2**

Risk analysis; occupational health and safety audits; hazard detection and analysis; control strategies; safety audits; fire and explosion prevention; quantitative hazard analysis, risk management, accident investigation and analysis.

Courses: HL88, PU65

Credit Points: 12

Contact Hours: 3 per week

■ **PUP415 OCCUPATIONAL HEALTH**

Exploration of chemical hazards in the working environment, epidemiological principles and practice, and identification of special risk groups in the workforce. Topics include: the pathological bases of disease in humans; chronic occupational diseases; occupational skin conditions; respiratory diseases; biological hazards in the work environment (bacteria, parasites, viruses, rickettsia and fungi); chemical and physical stresses and their physiological responses; physiological monitoring – principles and practice; special risk groups; epidemiological principles and practice.

Courses: HL88, PU65

Credit Points: 12

Contact Hours: 3 per week

■ **PUP430 HOME ECONOMICS CURRICULUM STUDIES 1**

The bases for making decisions about home economics

curriculum design and implementation are explored in order for participants to appreciate the complexity of this process and the necessity to clarify their own philosophical base for teaching in the area. The skills appropriate for preparing and implementing sequenced units of work are developed.

Course: ED37

Credit Points: 12 **Contact Hours:** 3 per week

■ **PUP431 HOME ECONOMICS CURRICULUM STUDIES 2**

Development of further skills in writing programs of work with an emphasis on advanced teaching/learning strategies, assessment and evaluation and the processes of accreditation and certification concomitant with BOSSSS requirements; current developments in education and implications for home economics curriculum; feasible teaching/learning approaches congruent with the needs of specific groups are developed to achieve more equitable education outcomes for all students.

Course: ED37

Prerequisite: PUP420

Credit Points: 12 **Contact Hours:** 3 per week

■ **SBB325 ACCOUNTING/BUSINESS MANAGEMENT CURRICULUM STUDIES 1**

The nature of the curriculum area/discipline and its role and contribution as a medium for education; introduction to relevant syllabuses and curriculum documents; lesson and curriculum unit planning activities; and teaching strategies designed to promote a range of learning experiences in selected curriculum areas.

Courses: ED50, ED54

Prerequisites: Normally the completion of 48 credit points in each relevant discipline area.

Credit Points: 12 **Contact Hours:** 3 per week

■ **SBB326 ACCOUNTING/BUSINESS MANAGEMENT CURRICULUM STUDIES 2**

Curriculum development within the context of contemporary policies, frameworks and agencies; general principles of measurement, assessment and evaluation; teaching and learning strategies; and issues and directions in curriculum development.

Courses: ED50, ED54

Prerequisite: SBB325

Credit Points: 12 **Contact Hours:** 3 per week

■ **SBB327 OFFICE COMMUNICATIONS TECHNOLOGY CURRICULUM STUDIES 1**

The nature of the curriculum area/discipline and its role and contribution as a medium for education; introduction to relevant syllabuses and curriculum documents; lesson and curriculum unit planning activities; and teaching strategies designed to promote a range of learning experiences in selected curriculum areas.

Courses: ED50, ED54

Prerequisites: Normally the completion of 48 credit points in each relevant discipline area.

Credit Points: 12 **Contact Hours:** 3 per week

■ **SBB328 OFFICE COMMUNICATIONS TECHNOLOGY CURRICULUM STUDIES 2**

Curriculum development within the context of contemporary policies, frameworks and agencies; general principles of measurement, assessment and evaluation; teaching and learning strategies; and issues and directions in curriculum development.

Courses: ED50, ED54

Prerequisite: SBB327

Credit Points: 12 **Contact Hours:** 3 per week

■ **SBB329 ECONOMICS CURRICULUM STUDIES 1**

The nature of the curriculum area/discipline and its role and contribution as a medium for education; introduction to relevant syllabuses and curriculum documents; lesson and curriculum unit planning activities; and teaching strategies designed to promote a range of learning

experiences in selected curriculum areas.

Courses: ED50, ED54

Prerequisites: Normally the completion of 48 credit points in each relevant discipline area.

Credit Points: 12 **Contact Hours:** 3 per week

■ **SBB330 ECONOMICS CURRICULUM STUDIES 2**

Curriculum development within the context of contemporary policies, frameworks and agencies; general principles of measurement, assessment and evaluation; teaching and learning strategies; and issues and directions in curriculum development.

Courses: ED50, ED54

Prerequisite: SBB329

Credit Points: 12 **Contact Hours:** 3 per week

■ **SBB331 GEOGRAPHY CURRICULUM STUDIES 1**

The nature of the curriculum area/discipline and its role and contribution as a medium for education; introduction to relevant syllabuses and curriculum documents; lesson and curriculum unit planning activities; and teaching strategies designed to promote a range of learning experiences in selected curriculum areas.

Courses: ED50, ED54

Prerequisites: Normally the completion of 48 credit points in each relevant discipline area.

Credit Points: 12 **Contact Hours:** 3 per week

■ **SBB332 GEOGRAPHY CURRICULUM STUDIES 2**

Curriculum development within the context of contemporary policies, frameworks and agencies; general principles of measurement, assessment and evaluation; teaching and learning strategies; and issues and directions in curriculum development.

Courses: ED50, ED54

Prerequisite: SBB331

Credit Points: 12 **Contact Hours:** 3 per week

■ **SBB333 HISTORY CURRICULUM STUDIES 1**

The nature of the curriculum area/discipline and its role and contribution as a medium for education; introduction to relevant syllabuses and curriculum documents; lesson and curriculum unit planning activities; and teaching strategies designed to promote a range of learning experiences in selected curriculum areas.

Courses: ED50, ED54

Prerequisites: Normally the completion of 48 credit points in each relevant discipline area.

Credit Points: 12 **Contact Hours:** 3 per week

■ **SBB334 HISTORY CURRICULUM STUDIES 2**

Curriculum development within the context of contemporary policies, frameworks and agencies; general principles of measurement, assessment and evaluation; teaching and learning strategies; and issues and directions in curriculum development.

Courses: ED50, ED54

Prerequisite: SBB333

Credit Points: 12 **Contact Hours:** 3 per week

■ **SBB335 LEGAL STUDIES CURRICULUM STUDIES 1**

The nature of the curriculum area/discipline and its role and contribution as a medium for education; introduction to relevant syllabuses and curriculum documents; lesson and curriculum unit planning activities; and teaching strategies designed to promote a range of learning experiences in selected curriculum areas.

Courses: ED50, ED54

Prerequisites: Normally the completion of 48 credit points in each relevant discipline area.

Credit Points: 12 **Contact Hours:** 3 per week

■ **SBB336 LEGAL STUDIES CURRICULUM STUDIES 2**

Curriculum development within the context of contemporary policies, frameworks and agencies; general prin-

ciples of measurement, assessment and evaluation; teaching and learning strategies; and issues and directions in curriculum development.

Courses: ED50, ED54 Prerequisite: SBB335
Credit Points: 12 Contact Hours: 3 per week

■ SBB337 SOCIAL SCIENCE CURRICULUM STUDIES 1

This unit assists students to develop those competencies needed for planning and teaching in selected curriculum areas. Content includes: the nature of the curriculum area/discipline and its role and contribution as a medium for education; introduction to relevant syllabuses and curriculum documents; lesson and curriculum unit planning activities; and teaching strategies designed to promote a range of learning experiences in selected curriculum areas.

Courses: ED50, ED54
Prerequisites: Normally the completion of 48 credit points in each relevant discipline area.

Credit Points: 12 Contact Hours: 3 per week

■ SBB338 SOCIAL SCIENCE CURRICULUM STUDIES 2

Curriculum development within the context of contemporary policies, frameworks and agencies; general principles of measurement, assessment and evaluation; teaching and learning strategies; and issues and directions in curriculum development.

Courses: ED50, ED54 Prerequisite: SBB337
Credit Points: 12 Contact Hours: 3 per week

■ SBB339 CURRICULUM IN SOCIAL EDUCATION

Builds on SBB340 to develop a coherent and balanced understanding of the nature and role of Social Education, the Queensland Primary Schools Social Studies Syllabus and P-10 Social Education Framework and introduces other national and international syllabi and programs. Investigates some of the more recent significant initiatives in Social Education, such as Aboriginal and Torres Strait Island Education, Environmental Education and Global Education. Students design an innovative curriculum program for the classroom and clarify their own philosophy and degree of commitment to Social Education teaching.

Course: ED51 Prerequisite: SBB340
Credit Points: 12 Contact Hours: 3 per week

■ SBB340 TEACHING SOCIAL EDUCATION

Develops an introductory understanding of the nature and role of Social Education and Queensland Primary Schools Social Studies Syllabus and Guidelines, Workbooks, and the P-10 Social Education Framework. Investigates the various learning styles in the classroom and appropriate teaching strategies to cater for these, especially processes for individualising instruction via inquiry learning.

Course: ED51
Credit Points: 12 Contact Hours: 3 per week

■ SBB341 DIRECTIONS IN SOCIAL EDUCATION

Builds on SBB339 and SBB340 and analyses the contribution to social education in the classroom of areas, themes and topics, such as teaching for a better world, environmental education, peace and justice, effective citizenship, political literacy, human rights, development education, gender and equity, global education and futures education.

Course: ED51
Credit Points: 12 Contact Hours: 3 per week

■ SBB342 SOCIAL & ENVIRONMENTAL FOUNDATIONS

Explores from an interdisciplinary perspective a number

of thematic questions about teaching: the historical development of social and environmental foundations in the study of society; the current socio-cultural context of social and environmental education; culture and beliefs as an influence on social and environmental activity; the quality of natural and social systems in the world; resources: conservation and development; place and space, continuity and change, key skills and competencies, critical and creative thinking, perceptions, attitudes and values in social and environmental studies.

Course: ED51, ED52
Credit Points: 12 Contact Hours: 3 per week

■ SBB343 THE AUSTRALIAN LEGACY

Examination of those forces which have shaped contemporary Australia. Through a consideration of this historical legacy, a better understanding of those social, economic and constitutional developments which are currently taking place in Australia can be achieved.

Course: ED51
Credit Points: 12 Contact Hours: 3 per week

■ SBB344 CONSUMER EDUCATION IN PRIMARY SCHOOLS

This unit provides opportunities for primary school teachers to gain an awareness of the role and functions of consumers in the Australian economy, and the inter-relationship between consumers, business and the government. It discusses consumer protection laws and the need for consumer protection. An examination of various teaching strategies and teaching resources and assists teachers to plan Consumer Education teaching programs for implementation in primary schools.

Course: ED51
Credit Points: 12 Contact Hours: 3 per week

■ SBB345 AUSTRALIA, ASIA AND THE PACIFIC: A FUTURES APPROACH

An introduction to the study of futures is attempted through an analysis of principal methods and contemporary eminent contributors. Methods and models are applied to the development of future scenarios and contemporary issues relevant to the region, e.g. population and migration, political institutions and systems, resource allocation and utilisation, sustainable development, environmental issues and structural change. Using understandings from the above, teaching methods and techniques are developed for the P-10 Social Education Curriculum.

Course: ED51
Credit Points: 12 Contact Hours: 3 per week

■ SBB346 ENVIRONMENTAL EDUCATION

This unit is designed to assist the beginning teacher to implement the Queensland Department of Education's environmental policy in primary schools. The major goal is to develop expertise in the design and delivery of class programs and activities.

Course: ED51
Credit Points: 12 Contact Hours: 3 per week

■ SBB347 ORGANISATION AND ADMINISTRATION OF ADULT AND WORKPLACE EDUCATION

Explores and analyses organisational structures and administrative practices found to be successful in adult and workplace education settings. Special attention is given to the impact of organisational form and function, financial provision and organisational policy on servicing the needs of clients. The effect of national and international policies and current legislative requirements on organisational and administrative designs and processes is examined closely.

Course: ED54
Credit Points: 12 Contact Hours: 3 per week

■ **SBB348 IMPLICATIONS OF THE NATIONAL TRAINING REFORM AGENDA**

The National Standards and competency based training; occupational health and safety; access and equity in workplace and community settings; principles and practices of recognising prior learning.

Course: ED53, ED54

Credit Points: 12 Contact Hours: 3 per week

■ **SBB349 STUDIES OF SOCIETIES AND ENVIRONMENT/HEALTH AND PHYSICAL EDUCATION**

This unit develops an introductory understanding of the nature and purpose of the Wiltshire Report's Studies of Society and Environment at the primary level. Current curriculum documents are analysed and teaching and learning strategies for their implementation are developed. The health section content includes: concepts and content incorporated in the philosophy of health education, the structure, management and evaluation of lessons in the school environment; planning learning experiences and developing health and physical education program modules.

Course: ED51

Credit Points: 12 Contact Hours: 3 per week

■ **SBB371 KNOWING YOUR ENVIRONMENT**

This unit uses an interdisciplinary social science approach to explore the origins, nature and impact of various environmental issues which threaten the continuing viability of our planet. Its aim is to develop a sound skills and knowledge base enabling students to analyse, synthesise and respond positively to many of the controversial and vital environmental problems at a local, national and global level.

Course: ED52, ED51

Credit Points: 12 Contact Hours: 3 per week

■ **SBB372 THE CONSUMER, SOCIETY AND THE ENVIRONMENT**

This unit is designed to enhance the knowledge and skills of the individual in one of the most important roles in a market oriented economy. Content includes: the role and functions of consumers in the Australian economy; the interrelationship between consumers, business and government; consumer protection laws and the need for them; ways of developing pro-active consumerism; and consuming for the environment – the 'green' consumer.

Course: ED52, ED51

Credit Points: 12 Contact Hours: 3 per week

■ **SBB373 FUTURE SOCIETIES AND ENVIRONMENTS – AUSTRALIA, ASIA AND THE PACIFIC**

This unit provided a futures approach in the study of the rapidly changing Asia-Pacific region. An introduction to the study of the future is made through an analysis of principal methods and contemporary contributors such as Toffler and Jones. Methods and models that are applied are relevant to Australia, Asia and the Pacific, involving such themes as: population and migration; international relations; political institutions and systems; resource allocation and utilisation; sustainable development; environment issues and structural change.

Course: ED52, ED51

Credit Points: 12 Contact Hours: 3 per week

■ **SBB410 CONSUMER EDUCATION**

Preparation of teachers to teach consumer education at various school levels either as a subject in its own right or as aspects of consumer education within other disciplines. Topics include: consumer education in the school curriculum; content in consumer education; teaching consumer education; curriculum development and innovation.

Courses: ED26, ED69, NS48

Credit Points: 12 Contact Hours: 3 per week

■ **SBB414 STUDIES OF SOCIETY AND ENVIRONMENT**

An investigation of the Key Learning Area of Studies of Society and Environment disciplinary versus interdisciplinary approaches; analysis of key strands; values; curriculum perspectives including gender perspectives; Aboriginal and Torres Strait Islander perspectives, multi-cultural perspectives, global perspectives, futures perspectives, technology and VET perspectives.

Course: ED50

Credit Points: 12 Contact Hours: 3 per week

■ **SBB415 STUDIES OF SOCIETY/HEALTH AND PHYSICAL EDUCATION**

This unit builds on the foundation established in SBB349 by allowing students to focus on significant areas such as Consumer Education, Political Education, Global Education and Legal Education. Students will design innovative curriculum programs. In the physical education section, the content includes: concepts and content incorporated in the philosophy of education, the structure, management and evaluation of physical education lessons in the school environment; planning learning experiences and developing program modules and units.

Course: ED51

Credit Points: 12 Contact Hours: 3 per week

■ **SBB440 ENVIRONMENTAL EDUCATION**

Valuable for all educators concerned with communicating environmental knowledge, concepts, skills, attitudes and values in formal and informal learning situations. Participants are encouraged to pursue the objectives of environmental education within their own subject specialisations.

Courses: ED26, ED54, NS48

Credit Points: 12 Contact Hours: 3 per week

■ **SBB441 BUSINESS ORGANISATION AND MANAGEMENT EDUCATION**

This unit is designed to assist teachers to teach Business Organisation and Management in secondary schools and other educational and training settings. It examines the philosophy of such courses, typical content, and appropriate teaching and assessment strategies.

Course: ED26

Credit Points: 12 Contact Hours: 3 per week

■ **SBB442 ENVIRONMENTAL FIELD STUDIES**

This unit is designed to identify and value a wide range of field study resources and venues. Extensive involvement with field study experiences will assist students in developing appropriate skills for investigating environmental issues and concerns as well as helping students reflect and refine the usefulness and value of field experience in developing effective environmental education programs.

Course: ED51

Credit Points: 12 Contact Hours: 3 per week

■ **SBN603 CRITICAL APPROACHES IN SOCIAL AND ENVIRONMENTAL EDUCATION**

The most exciting initiatives in social and environmental education over the past two decades have reflected visions of a world that is more peaceful, just and ecologically sustainable. These initiatives have been in areas including Development Education, Environmental Education, Global Education and Futures Education. All of these fields encompass critical pedagogical approaches. In this unit, students initially explore the philosophical assumptions of critical pedagogies, and then investigate their practical applications in major fields of social and environmental education. As well, students analyse current national and state educational policies, to evaluate the support they offer for critical approaches in social and environmental education. Students are able

to base their assignment work on their own areas of expertise and interest.

Courses: ED13, ED11

Credit Points: 12

■ SBN604 ENVIRONMENTAL EDUCATION & INTERPRETATION

Provides opportunities for students to investigate approaches to social education which are based on significant disciplines within the field – for example, history, geography and economics. There is scope for students to focus their work in this unit on one selected disciplinary area. Studies focus on recent epistemological developments within the selected discipline(s), and on pedagogical debates about the nature and value of disciplinary approaches to social education. Students analyse the ways those debates are reflected in policy formulation and curriculum practice in schools.

Courses: ED13

Credit Points: 12

■ SBN605 CURRICULUM ISSUES IN SOCIAL AND ENVIRONMENTAL EDUCATION

Some of the most enduring debates in social and environmental education focus on the role of disciplinary knowledge. For most of this century, educators in major Western countries have argued the relative merits of curricula based on single-disciplinary, multidisciplinary and interdisciplinary approaches. This unit provides opportunities for students to explore these issues in theoretical and practical curricular contexts.

Courses: ED13, ED11

Credit Points: 12

■ SBN606 ISSUES IN ENVIRONMENT EDUCATION AND INTERPRETATION

The development of research skills in students and providing them with the opportunity to critically explore issues in environmental education and make interpretations of personal professional relevance. Students undertake reading and research in an area of their choice and produce their findings in a seminar. In these seminars students critically evaluate current literature, controversial issues and debates in their area of study as well as present their findings in the form of a research report.

Courses: ED13

Credit Points: 12

■ SBN607 BUSINESS ADMINISTRATION/ COMMUNICATIONS EDUCATION

Business educators and trainers working in the clerical-administrative fields are faced with continual opportunities and challenge, due to changes in the social, cultural, technological, economic and political environments. An opportunity is provided for students to develop the necessary research skills and learning strategies, and competence in advanced training strategies in order to take advantage of these opportunities and challenges.

Courses: ED13, ED11

Credit Points: 12

■ SBN608 STRATEGIES FOR BUSINESS EDUCATORS AND TRAINERS

This unit addresses major themes revolving around the workplace of the 1990s and beyond; preparation, planning, operation and management of training; evaluating, marketing and delivering training; and consulting. An opportunity is provided for students to study and critically examine advanced training and consulting methods, and then apply them to developing a training program and a consulting and marketing proposal relevant to their area of work within the field of business education and training. Teaching approaches are based on the principles of adult learning theory and practice.

Courses: ED13, ED11

Credit Points: 12

■ SBN609 STRATEGIES IN ACCOUNTING AND BUSINESS MANAGEMENT EDUCATION

This unit provides the opportunity for students to study and analyse important issues and trends relating to Accounting and Business Management Education, and then

to apply their knowledge to investigating an issue or trend in their own work context. The unit also focuses on the training and curriculum development of Accounting and Business Management subjects.

Courses: ED13, ED11

Credit Points: 12

■ SBN610 TRENDS AND ISSUES IN BUSINESS EDUCATION AND TRAINING

This unit provides the opportunity for students to study and analyse current issues and trends, and then to apply their knowledge to investigating an issue or trend in their own work context. The major themes to be covered in the unit relate to the identification and impact of international and national trends on the field of business education and training. Teaching approaches are based on the principles of adult learning and practice.

Courses: ED13, ED11

Credit Points: 12

■ SBP401 ACCOUNTING CURRICULUM STUDIES 1

The nature of Accounting/Business Management education and its role and contribution as a medium for education; introduction to the relevant syllabuses and curriculum documents; lesson and curriculum planning activities; teaching strategies designed to promote a range of learning experiences in the Accounting/Business Education areas.

Course: ED37

Credit Points: 12

Contact Hours: 3 per week

■ SBP402 ACCOUNTING CURRICULUM STUDIES 2

Consideration and practical application of curricular and teaching principles in the Accounting/Business Management area, emphasis on the use of computers; development of work programs, assessment programs and teaching packages in Accounting/Business Management areas. Establishment of principles which are used to guide school experience during teaching practice and also as a beginning teacher; contemporary issues and emerging trends in Accounting/Business Management education curriculum development.

Course: ED37

Credit Points: 12

Prerequisite: SBP401

Contact Hours: 3 per week

■ SBP403 ECONOMICS CURRICULUM STUDIES 1

The nature of Economics and its role in the general curriculum; introduction to relevant syllabuses and curriculum documents; lesson and curriculum unit planning applied to Economics; teaching strategies and resources designed to motivate students and promote a range of interactive learning experiences.

Course: ED37

Credit Points: 12

Contact Hours: 3 per week

■ SBP404 ECONOMICS CURRICULUM STUDIES 2

Continuation of SBP403. Curriculum development within the context of contemporary policies, frameworks and agencies; advanced teaching strategies and the use of computers in teaching Economics; unit development; assessment and evaluation in Economics; issues and directions in curriculum development.

Course: ED37

Credit Points: 12

Prerequisite: SBP403

Contact Hours: 3 per week

■ SBP405 GEOGRAPHY CURRICULUM STUDIES 1

The interpretation of Geography syllabi in Queensland; the nature and role of Geography in general education; lesson and unit planning; teaching and learning approaches designed to promote different classroom activities and cater for different students' needs.

Course: ED37

Credit Points: 12

Contact Hours: 3 per week

■ **SBP406 GEOGRAPHY CURRICULUM STUDIES 2**

Continuation of SBP405. Examination of the broader issues of Geographical education and the roles of Geography teachers in the community and the profession.

Course: ED37 Prerequisite: SBP405
Credit Points: 12 Contact Hours: 3 per week

■ **SBP407 HISTORY CURRICULUM STUDIES 1**

Development of a rationale for inquiry-based curricula in History for secondary schools, application of inquiry-based principles to curriculum development at levels from school programs to individual lessons.

Course: ED37
Credit Points: 12 Contact Hours: 3 per week

■ **SBP408 HISTORY CURRICULUM STUDIES 2**

Continuation of SBP407. Assessment of principles and practices; evaluation of the potential for History to contribute to emerging fields of social education, including global education and development education.

Course: ED37 Prerequisite: SBP407
Credit Points: 12 Contact Hours: 3 per week

■ **SBP409 LEGAL STUDIES CURRICULUM STUDIES 1**

Legal Studies in the school curriculum; socially critical approach to the teaching of Legal Studies; overview of the Legal Studies course in Queensland; lesson and curriculum unit planning activities; basic teaching strategies to promote a range of learning experience in Legal Studies; developing basic teaching skills related to the first teaching practice session.

Course: ED37
Credit Points: 12 Contact Hours: 3 per week

■ **SBP410 LEGAL STUDIES CURRICULUM STUDIES 2**

Continuation of SBP409. Curriculum development within the context of contemporary principles; advanced strategies to further promote a range of learning experiences; assessment and evaluation techniques; assessment programs and teaching packages in Legal Studies; issues and directions in curriculum development.

Course: ED37 Prerequisite: SBP409
Credit Points: 12 Contact Hours: 3 per week

■ **SBP411 OFFICE COMMUNICATIONS TECHNOLOGY CURRICULUM STUDIES 1**

The nature of office communications technology, its role in the general curriculum; introduction to relevant syllabuses and curriculum documents; basic teaching strategies (including microteaching), and resources designed to motivate students and promote a range of participative learning experiences.

Course: ED37
Credit Points: 12 Contact Hours: 3 per week

■ **SBP412 OFFICE COMMUNICATIONS TECHNOLOGY CURRICULUM STUDIES 2**

Continuation of SBP411. Curriculum development within the context of contemporary policies; advanced teaching strategies; unit development; general principles of measurement, assessment and evaluation; issues and directions in curriculum development which are pertinent to office communications technology; opportunities to assist students reflect on their own professional development, as they prepare for a teaching career.

Course: ED37 Prerequisite: SBP411
Credit Points: 12 Contact Hours: 3 per week

■ **SBP502 ETHICS & ECONOMICS IN ENVIRONMENTAL EDUCATION**

Development of an understanding of the nature of environmental economics and different philosophies, ideologies and cultural views towards the environment; devel-

opment of teaching strategies and resources for teaching environmental economics and ethics.

Courses: ED22, ED26
Credit Points: 12 Contact Hours: 3 per week

■ **SBP517 FINANCIAL MANAGEMENT IN EDUCATION SETTINGS**

The financial aspect of managing an educational setting; various financial management control problems; the basic accounting principles and skills used in the recording and management of school financial transactions; guidelines for the efficient and effective use of limited school financial resources.

Course: ED23, ED26 Credit Points: 12

■ **SCB001 LEARNING AT UNIVERSITY**

Aims to develop students' awareness and use of learning processes necessary for quality learning at university. It encourages a more meaningful approach to learning through the development of active learning strategies effective in scientific study. The content is closely allied to other first year units. Classes have an interactive format which require active student involvement.

Course: SC30
Credit Points: 2 Contact Hours: 1 per week

■ **SCB100 COOPERATIVE EDUCATION**

Ten to 12 months placement in paid employment related to their course, in a commercial environment under the joint supervision of an industry supervisor and an academic adviser. An academic adviser obtains reports from the student and their work supervisor at regular intervals. The student is required to submit a written report on the conclusion of their placement. Results are determined on the basis of these reports and the employer's evaluation of the student's performance and development.

Courses: CH32, MA34, SC30
Prerequisites: Completion of 4 semesters of a standard full-time degree-level course, normally with a GPA of not less than 4.5 overall.

■ **SCB202 SCIENCE, TECHNOLOGY & SOCIETY**

The origins of modern science and technology in a social and historical context leading to the study of their role and impact in contemporary society; includes case studies of the development of particular concepts, issues and science and technology based industries. Topics include: the study of the nature of science and technology; the sociological functioning of the scientific enterprise – its norms and values; the nature of scientific knowledge – objectivity and epistemological issues; the future of science and technology – policy and influences.

Course: ED50
Credit Points: 12 Contact Hours: 4 per week

■ **SCB222 EXPLORATION OF THE UNIVERSE**

Introduction to optical observational astronomy; instrumentation; celestial sphere and astronomical coordinates, observations of constellations, stars, planets, clusters and other interesting celestial objects. Theory: physical geology of the planets and formation of the solar system, gravitation, optics of telescopes, spectra and their measurement, phenomena of astronomical origin, brief introduction to stars and galaxies. Practical exercises and field trips.

Courses: ED50, SC30
Credit Points: 12 Contact Hours: 5 per week

■ **SCB246 ENGINEERING PHYSICS & CHEMISTRY**

The physics of heat and properties of matter; including heat, energy transfer, heat engines, thermodynamics, entropy and order. The chemistry of materials including such topics as PH control; polymers and composites and

corrosion and its prevention.

Note: Students must pass both Physics and Chemistry modules to obtain credit in this unit.

Course: CE42 **Prerequisites:** CHB002 or equivalent
Credit Points: 8 **Contact Hours:** 3 per week

■ **SCB510 INTRODUCTION TO QUALITY MANAGEMENT**

Management: concepts, systems, costs and total quality management. Improvement: techniques and procedures.
Courses: SC30, MA34

Prerequisites: MAB237 or MAB347 and successful completion of at least 192 credit points.

Credit Points: 12 **Contact Hours:** 4 per week

■ **SSB000 AUSTRALIAN SOCIETY: INTRODUCTION TO SOCIOLOGY**

This unit is designed to introduce students to the way sociology approaches the understanding of the social world in general and Australian society in particular. The unit is organised into three sections. The first section tries to define sociology and its place in the social sciences. The second section looks at some of the key concepts of contemporary sociology and will attempt to demonstrate their pertinence to the analysis of Australian society. The third and final section looks at some of the key theoretical debates and how they elucidate some fundamental changes in contemporary societies like Australia.

Courses: PU49, SS07

Credit Points: 12 **Contact Hours:** 3 per week

■ **SSB001 HUMAN DEVELOPMENT 1**

Theories of human development; theories of child development; life-events, transitions and stresses of childhood; values clarification regarding children; disturbances in children; applying developmental theory to service provision for children; cross-cultural and Aboriginal child development; moral development; gender development; child abuse; play and creativity in children; bonding and attachment in early childhood; historical development of childhood; family life cycle; biological bases of child development; the impact of political oppression on child development.

Course: SS07

Credit Points: 12 **Contact Hours:** 3 per week

■ **SSB002 INTRODUCTION TO HUMAN RIGHTS**

Historically, social science inquiry has sustained a particular interest in both explaining, and changing, human situations characterised by deprivation, exploitation, oppression, persecution, disadvantage and disempowerment. This unit, the first of three dealing with the study of human rights, explores such situations from a human rights perspective. It begins an exploration idea of individual and collective human rights and assesses selected international and national situations in terms of civil, political, economic, social and cultural rights.

Course: SS07

Credit Points: 12 **Contact Hours:** 3 per week

■ **SSB003 INTRODUCTION TO PSYCHOLOGY 1A**

Using an inductive learning approach, this unit examines ways of conceptualising and understanding behaviour and focusses on social perception; learning theories and paradigms; the nature of emotions and defensiveness; the social psychology of attitudes/values, self concept, roles, gender, power, groups; models of verbal and non-verbal communication; stress.

Course: SS07

Credit Points: 12 **Contact Hours:** 3 per week

■ **SSB004 SOCIAL INEQUALITY IN AUSTRALIA**

This unit explores the nature of social inquiry exempli-

fied in approaches to the construction and explanation of 'inequality'. The subject outlines the way notions such as inequality are constructed and explained with reference to sociological perspectives. Both nineteenth century and contemporary approaches are examined in relation to dimensions of inequality such as power, class, status, gender, race and ethnicity. These perspectives are then applied to fields such as the State, Economics, Politics and Culture in contemporary Australia. Students will be encouraged to look critically at the usefulness of the concept of inequality.

Course: SS07

Credit Points: 12 **Contact Hours:** 3 per week

■ **SSB005 HUMAN DEVELOPMENT 2**

Theories of adolescence; transitions and events in adolescence; adult life and transitions; theories of adulthood; human empowerment; mid-life issues; renewal in mid-life; models of ageing; aged care issues; death.

Course: SS07

Credit Points: 12 **Contact Hours:** 3 per week

■ **SSB006 STUDIES IN HUMAN RIGHTS 2**

This unit continues the social science tradition of inquiry into situations of disadvantage and disempowerment. It examines social differentiation, and applies a human rights perspective to discrimination on the grounds of gender, race, religion, linguistic heritage and age. It analyses the human rights of selected vulnerable individuals and groups including children, young people, juvenile offenders, prisoners, refugees and persons with psychiatric, physical or intellectual disability. Emphasis is placed on evaluating the adequacy of legal, administrative, and advocacy procedures.

Course: SS07

Credit Points: 12 **Contact Hours:** 3 per week

■ **SSB007 INTERPERSONAL PROCESSES & SKILLS**

Examines complex communication skills and understandings; communication as a change process and as narrative; awareness and skills with regard to social style, assertion, confrontation and other influencing skills; conflict; stress and burnout; gender and cross-cultural issues in communication; interviewing skills.

Course: SS07

Credit Points: 12 **Contact Hours:** 3 per week

■ **SSB008 COUNSELLING THEORY & PRACTICE 1**

Analyses and develops skills associated with the nature of counselling process and helping relationship; theoretical bases of major counselling approaches; counselling skills of major approaches; 're-authoring' and deconstructionist perspectives; ethical, gender and cultural issues in counselling; counselling applied in particular situations; group counselling; change processes in counselling; sociological analysis of the role and function of counselling.

Course: SS07

Credit Points: 12 **Contact Hours:** 3 per week

■ **SSB009 THE AUSTRALIAN WELFARE STATE**

The origins of and contemporary nature of the Australian welfare state are explored. Historical data on the antecedents to and stages of welfare state development is presented. The major debates and controversies are explored. An overview is given of the structural arrangements of the Australian welfare state.

Course: SS07

Credit Points: 12 **Contact Hours:** 3 per week

■ **SSB010 PROFESSIONAL RESOURCES 1**

Develops two key themes: 'worker as a resource' theme introduces students to frameworks for practice; human

service worker roles and interventions; notions of need and assessment; 'government and non-government services as resources' theme introduces students to the legislative base, referral and appeal mechanisms of government and non-government services.

Course: SS07

Credit Points: 12 Contact Hours: 3 per week

■ SSB011 CHILD & FAMILY SERVICES 1

Introduction to child and family welfare theory and practice and contemporary services, particularly family violence; successful family functioning and adaptation through the life span; basic needs and rights of families; developmental stages and transitions of the family life cycle; family relationship dynamics, causes of family dysfunction, crises and disruption; theoretical approaches working with families, family assessments, planning interventions and recording data; legislation, ethical and practice standards.

Course: SS07

Credit Points: 12 Contact Hours: 3 per week

■ SSB012 DISABILITY SERVICES 1

History and attitudes to disability; impact of disability upon individuals and their families; critical review of the principles and theoretical frameworks (normalisation, social role valorisation, least restrictive alternative, dignity of risk, self advocacy) which underpin services; planning around individuals, personal futures planning.

Course: SS07

Credit Points: 12 Contact Hours: 3 per week

■ SSB013 CORRECTIVE SERVICES 1

An introduction to the criminal justice system; the relationship between the criminal justice system and the offender; social control and social order; the impact of incarceration on offenders, their families and the wider community; women and Aborigines in the criminal justice system; victims of crime.

Course: SS07

Credit Points: 12 Contact Hours: 3 per week

■ SSB014 AGED SERVICES 1

Physiological, psychological, social and cultural aspects of ageing; theories of ageing; ageism; an introduction to ageing research; quality of life issues; common transition and ageing; communication with the aged.

Course: SS07

Credit Points: 12 Contact Hours: 3 per week

■ SSB015 MULTICULTURAL SERVICES 1

The unit aims to provide a basic orientation to the context, options and difficulties associated with human service programs for multicultural Australia. It introduces the policies, concepts and issues surrounding multicultural services. Students will gain and understanding of the experiences of immigration and resettlement.

Course: SS07

Credit Points: 12 Contact Hours: 3 per week

■ SSB016 YOUTH SERVICES 1

The development and character of youth services in Australia; outline of a framework for reflective youthwork practice; youth services relating to labour market housing, juvenile justice, education, health and young people in the context of families; contemporary practice and policy issues identified through field enquiry and examination of relevant literature.

Course: SS07

Credit Points: 12 Contact Hours: 3 per week

■ SSB017 GROUP WORK

This unit provides an intensive group experience in either a camp, weekend residential or two single day program and examines types of groups and varieties of group experiences; the importance and uniqueness of group medium; understanding behaviour in the group context;

theories and models of group development; leader and member behaviours; planning, implementing and evaluating group methods; establishing groups and planning group approaches; the group as a therapeutic community; evaluating group work; ethical issues.

Course: SS07

Credit Points: 12 Contact Hours: 3 per week

■ SSB019 PROFESSIONAL RESOURCES 2

Extension of 'the worker as a resource' and 'government and non-government services as resources' themes. Most particularly, students integrate welfare interviewing and referral skills with their knowledge of service networks through a series of interview role plays. Introduction to the use of statistics (from electronic and print resources) in service planning and submission writing.

Course: SS07

Prerequisite: SSB010

Credit Points: 12 Contact Hours: 3 per week

■ SSB020 CHILD & FAMILY SERVICES 2

An overview of the frameworks, assessments and intervention skills necessary for human service work with children in the following contexts: child protection, alternative care, domestic violence, divorce, juvenile justice and chemical dependency.

Course: SS07

Prerequisite: SSB011

Credit Points: 12 Contact Hours: 3 per week

■ SSB021 DISABILITY SERVICES 2

Major life domains of home, work, education, leisure, relationships as they relate to people with a disability. Contemporary service responses to these life domains. Impact of specific disabling conditions: intellectual, physical, sensory and psychiatric.

Course: SS07

Prerequisite: SSB012

Credit Points: 12 Contact Hours: 3 per week

■ SSB022 CORRECTIVE SERVICES 2

Criminological theory and research; correctional policy and practice; empirical data on criminality; major theoretical paradigms of criminality; social location and extent of crime; the costs of crime; individual and community attitudes towards crime and criminals.

Course: SS07

Prerequisite: SSB013

Credit Points: 12 Contact Hours: 3 per week

■ SSB023 AGED SERVICES 2

Services available to the aged within the community and institutions; policy issues and assessment procedures; special interest groups; ethnic aged, Aboriginal and Torres Strait Islander aged, rural aged, aged carers.

Course: SS07

Prerequisite: SSB014

Credit Points: 12 Contact Hours: 3 per week

■ SSB024 MULTICULTURAL SERVICES 2

This unit aims to increase the knowledge and understanding of the characteristics and circumstances of Australia's ethnic minorities and their implications in the use of welfare intervention techniques. The needs and issues of specific interest groups are explored. The unit promotes cultural sensitivity by exploring the social mores of Australia's ethnic minorities.

Course: SS07

Prerequisite: SSB015

Credit Points: 12 Contact Hours: 3 per week

■ SSB025 YOUTH SERVICES 2

Young people: their experiences.... practice responses. Particular attention will be given to the way gender, ethnicity, class, geographical locations and disability affect the experience of young people as described through various forms of social commentary and research. Current and emerging intervention strategies will be identified and the assumptions, strengths, and limitations of them explored.

Course: SS07

Prerequisite: SSB016

Credit Points: 12 Contact Hours: 3 per week

■ **SSB026 FIELDWORK PRACTICE 1**

A two-stage program of pre-placement tutorials and a ten-week block placement (or negotiated equivalent) in a human service setting (offering a professionally supervised, contracted learning experience of human service work). Challenges students to acquire and integrate critical human services competencies, attitudes and knowledge.

Course: SS07

Prerequisite: Enrolment in the Bachelor of Social Science (Human Services). All preceding units are prerequisites/corequisites at the discretion of the Course Coordinator and Field Education Coordinator.

Credit Points: Not applicable

Note: Students who fail to achieve a satisfactory standard of performance on placement are liable to exclusion from the course.

■ **SSB027 COMMUNITY WORK**

Community work as a distinct intervention skill is defined. The background to community work in Australia. Models of community work are introduced and analysed. Basic skills and techniques are developed: entering a community; building community involvement; developing community action; managing common problems.

Course: SS07

Credit Points: 12 **Contact Hours:** 3 per week

■ **SSB028 AUSTRALIAN POLITICAL STRUCTURES & INSTITUTIONS**

Introduction to the Australian political system; examination of the Constitution and federal and state structures, institutions and processes, with particular reference to human services; analysis of the ideologies, structures, decision-making and policy-making of political parties; review of the bureaucracy and public policy development; aspects of the Australian economy and individual system.

Course: SS07

Prerequisite: SSB004
Credit Points: 12 **Contact Hours:** 3 per week

■ **SSB030 CHILD & FAMILY SERVICES 3**

Work with disadvantaged parents, foster parents and adoptive parents; human services responses by women for women; parents' and women's participation in services; service characteristics consistent with user rights, empowerment and social justice; parents and families involuntarily receiving services; application of skills in ethical decision-making, policy development, interpersonal processes and group work.

Course: SS07

Prerequisite: SSB020
Credit Points: 12 **Contact Hours:** 3 per week

■ **SSB031 DISABILITY SERVICES 3**

Policies, legislation and programs which impact upon people with a disability reviewed at federal, state and local government levels; analysis of international influences on the Australian scene; policy areas of disability, income maintenance, housing, education, transport, employment, etc.

Course: SS07

Prerequisite: SSB021
Credit Points: 12 **Contact Hours:** 3 per week

■ **SSB032 CORRECTIVE SERVICES 3**

The functioning of the Queensland Corrective Services Commission: social and political influences on correctional policy; statutory responsibilities and limitations of corrections; issues of communication and organisational change.

Course: SS07

Prerequisite: SSB022
Credit Points: 12 **Contact Hours:** 3 per week

■ **SSB033 AGED SERVICES 3**

International trends in aged care; environmental issues and ageing; mental health and ageing; sexuality and ageing; ageing, work and retirement.

Course: SS07

Credit Points: 12

Prerequisite: SSB023

Contact Hours: 3 per week

■ **SSB034 MULTICULTURAL SERVICES 3**

This unit aims to develop the students' ability to critically evaluate Australia's social institutions for their relevance and fairness to ethnic minorities. Explores contemporary principles which direct service delivery as it relates to ethnic minorities and evaluate current promotion methods employed.

Course: SS07

Credit Points: 12

Prerequisite: SSB024

Contact Hours: 3 per week

■ **SSB035 YOUTH SERVICES 3**

This unit will explore the nature and implications of 'youth work' within various contexts. Different settings (e.g. statutory and non-statutory, government and non-government) will be examined. Within this framework the unit will focus on youth policy development and analysis, and contemporary policy and practice issues in relation to the juvenile justice system.

Course: SS07

Credit Points: 12

Prerequisite: SSB025

Contact Hours: 3 per week

■ **SSB036 FIELDWORK PRACTICE 2**

A two-stage program of pre-placement tutorials and a ten-week block placement (or negotiated equivalent) in a human service setting (offering a professionally supervised, contracted learning experience of human service work). Challenges students to consolidate and extend critical human service competencies, attitudes and knowledge.

Course: SS07

Prerequisite: Enrolment in the Bachelor of Social Sciences (Human Services). All preceding units are prerequisites/corequisites at the discretion of the Course Coordinator and Field Education Coordinator.

Credit Points: Not applicable

Note: Students who fail to achieve a satisfactory standard of performance on placement are liable to exclusion from the course.

■ **SSB037 STUDIES IN HUMAN RIGHTS 3**

This is the third unit dedicated to studies in human rights. It maintains and expands the human rights framework by examining notions of collective or solidarity rights. It applies such a framework to linguistic, religious, legal, social and political issues relating to ethnic minorities and indigenous peoples. It uses a collective rights framework to explore the inter-relationship between human rights and global issues including peace, international security, sustainable development, environmental degradation and the national rights to economic, social and cultural development.

Course: SS07

Credit Points: 12

Prerequisite: Course: SSB006

Contact Hours: 3 per week

■ **SSB038 SOCIAL POLICY & SOCIAL CHANGE**

Conceptualising economic, population and structural change in Australia; understanding emergent ideas about state and society; identifying and contrasting alternative social policies and strategies.

Course: SS07

Credit Points: 12

Contact Hours: 3 per week

■ **SSB039 CONTEMPORARY SOCIAL POLICIES**

Major debates in social policy will be explored. Analyses of Australia's response and the impact on redistribution in the Welfare State. Current analyses of health, housing, income security, legal, immigration and family policies at federal, state and local government level.

Course: SS07

Credit Points: 12

Contact Hours: 3 per week

■ SSB046 DIRECTED STUDIES IN HUMAN SERVICE PRACTICE & THEORIES

This unit will provide an opportunity for students to undertake a directed reading and study project within their chosen service area. Students will undertake study which has a high level of specificity within an area or areas of practice identified by each Service Coordinator. Contents will be tailored to the specific service area.
Course: SS07
Credit Points: 12 **Contact Hours:** 3 per week

■ SSB047 ORGANISATIONAL SKILLS 1

Development of an empowering approach for functioning effectively as a member of a human service organisation; personal and interpersonal skills including career, time and stress management, working collaboratively with co-workers and managers, resolving disagreement and conflict, participating in change.
Course: SS07 **Prerequisites:** SSB007
Credit Points: 12 **Contact Hours:** 3 per week

■ SSB048 ORGANISATIONAL SKILLS 2

The managerial task in human service organisations; managerial paradigms and an empowering managerial framework; developing collaborative work environments; recruitment, selection and development of workers; managing disagreement and conflict; introducing change.
Course: SS07 **Prerequisite:** SSB047
Credit Points: 12 **Contact Hours:** 3 per week

■ SSB101 INTRODUCTION TO PSYCHOLOGY AND HEALTH CARE

An introduction to the principal content areas and methodology of psychology. Topics include: developmental theory; perception and cognition; personality; emotions, stress, anxiety and coping; self-esteem and self-identity and learning.
Course: NS40
Credit Points: 12 **Contact Hours:** 3 per week

■ SSB802 TECHNOLOGY & CULTURE

Investigates the social and cultural aspects of technology practice; the relationship between social and cultural organisation and behaviour, and the technical aspects of human development; historical, anthropological, sociological and cultural perspectives are used to analyse the relationship between technology and culture.
Course: ED26
Credit Points: 12 **Contact Hours:** 3 per week

■ SSB803 SOCIAL PSYCHOLOGY

General study of applied social psychology and its relevance to a variety of professional roles and work environments; group dynamics and related concepts; analysing small group development; behaviours affected by stress or pressure, health, environmental design and work space.
Course: PU49
Credit Points: 12 **Contact Hours:** 3 per week

■ SSB804 PSYCHOLOGY & GENDER

What is gender?; theories of gender; male and female; masculine and feminine; roles versus power; counselling issues; old and new paradigms; history of psychology of gender; sexuality; mothers and fathers; 'psychology constructs the female'; psychology in patriarchal discourse; family therapy theory and feminist critiques; psychological constructs and the media; film and media; psychology of gender and power.
Course: SS07 **Prerequisite:** SSB003 or SSB912
Credit Points: 12 **Contact Hours:** 3 per week

■ SSB806 INTERPERSONAL & GROUP PROCESSES

Understanding relationships and small group dynamics with emphasis on skill development in listening, help-

ful responding, assertion, conflict resolution, disclosure, feedback; models of group development and roles lead to facilitation and leadership skills. Skills are applied and analysed outside the class.

Course: ED50
Credit Points: 12 **Contact Hours:** 3 per week

■ SSB807 HUMAN SEXUALITY

Sexuality; model strategies for dealing appropriately with sensitive, value-laden issues; personal comfort in discussion of sexual matters; aspects of sexuality relevant to the student's own development; the sexual development of adolescents; issues of social concern such as sexual abuse of children.
Course: ED50
Credit Points: 12 **Contact Hours:** 3 per week

■ SSB890 PSYCHOLOGY

Students critically evaluate statements about behaviour; state and give examples of higher order motives and apply this knowledge to work and interpersonal situations; understand factors which cause people to misperceive others, and explain how to minimise misperception; use of effective social skills in interpersonal and group settings; understand theories of attitude, change and know implications of changing the behaviour of others; use skills necessary for starting a successful small business.
Course: PU47
Credit Points: 8 **Contact Hours:** 3 per week

■ SSB903 SOCIOLOGY FOR HEALTH PROFESSIONALS

An examination of sociology's origins, theories, perspectives and methodologies with reference to health and wellness, illness and premature mortality; empirical data on mortality and morbidity in contemporary Australia are presented and subjected to sociological analyses to indicate social patterns, processes promoting or constraining levels of health.
Course: PU42
Credit Points: 6 **Contact Hours:** 3 per week

■ SSB904 SOCIOLOGY OF HEALTH & ILLNESS

This unit analyses in detail the statement that: 'The major determinants of health and illness are social, cultural, behavioural, occupational, regional, environmental and parental.' Indigenous, migrant and rural health determinants in Australia are investigated. The importance of a social and cultural approach to environmental health issues is highlighted.
Course: PU42 **Prerequisite:** SSB903
Credit Points: 6 **Contact Hours:** 3 per week

■ SSB905 PSYCHOLOGY FOR HEALTH PROFESSIONALS

Presents particular aspects of the theories, skills and approaches of interpersonal, social and organisational psychology which are relevant to nursing practice. Topics include: humanistic, cognitive, behavioural and social models for understanding the individual; communication processes; self-concept and self-esteem; protection of the ego; the impact of emotions and beliefs on health behaviour; and interpersonal communication skills.
Courses: NS40, NS48
Credit Points: 8 **Contact Hours:** 3 per week

■ SSB906 SOCIOLOGY FOR HEALTH PROFESSIONALS

Sociological theories and methods are studied to identify and analyse social relationships, social processes and social patterns relating to the social origins of illness and wellness; analysis trends in morbidity and mortality in society which are not randomly distributed but associated with social structural variables such as eth-

nicity, gender, social class, age and geographical location; examines the health care system internally and in relation to its public use and its effectiveness in addressing contemporary health issues in Australia.

Courses: NS40, NS48

Credit Points: 8 **Contact Hours:** 3 per week

■ SSB907 PSYCHOLOGY FOR ENGINEERS

Introductory psychology; basic elements of transactional analysis and their application to work settings; self-concept and its relationship to socially effective behaviour; attitudes and attitude change; the dynamics of supervision in the work place.

Courses: ME44, ME45

Credit Points: 4 **Contact Hours:** 2 per week

■ SSB908 BEHAVIOURAL SCIENCE

An introduction to perception, motivation, individual personality, social attitudes, group interaction and dynamics; social motives and the sources and resolution of conflict; the practical application and limitations of behavioural studies; readings and case studies drawn from the building industry; the job and responsibilities of management; the functions and role of the manager including planning, organisation, control, budgeting and decision-making; styles of leadership; employee selection training, appraising and promotion; worker efficiency and working conditions.

Courses: CN31, CN32

Credit Points: 6 **Contact Hours:** 3 per week

■ SSB910 INTRODUCTORY PSYCHOLOGY FOR HEALTH PROFESSIONALS

A course of lectures and tutorials on psychology as a science and interpersonal behaviour and skills and its relevance to the radiographer.

Course: PH38

Credit Points: 4 **Contact Hours:** 2 per week

■ SSB911 GENERAL PSYCHOLOGY

This course is designed to give optometry students an ability to demonstrate effective interpersonal skills in relation to patients and other health professionals; indicate bases of individual differences; diagnose patient needs and respond appropriately; state causes of stress, effects on health, and indicate appropriate techniques to reduce stress; indicate techniques that may be used to modify patient attitudes.

Course: OP42

Credit Points: 4 **Contact Hours:** 3 per week

■ SSB912 PSYCHOLOGY

An introduction to general psychology to give a base for subsequent studies in the various fields of psychology and to provide limited skills training in some areas for personal development; research approaches; learning and motivation; individuals and groups; the development of groups and the assessment of individuals within groups; perception, human development, and stress management, individual differences, psychological testing and personality.

Courses: HM42, PU49

Credit Points: 12 **Contact Hours:** 3 per week

■ SSB913 DEVELOPMENTAL PSYCHOLOGY

A basis for the study of the promotion of psychological health of individuals at differing developmental stages. The content includes psychological adjustment, developmental theories, developmental aspects of childhood, adolescence, middle and old age and specific areas such as sexual development, death and dying; relationships to work and professional environments.

Course: SS07

Prerequisite: SSB003 or SSB912 or SSB932

Credit Points: 12 **Contact Hours:** 3 per week

■ SSB914 PSYCHOLOGY

Students are taught to critically evaluate statements about behaviour; state and give examples of higher order motives, and apply this knowledge to work and interpersonal situations; understand factors which cause us to misperceive others, and explain how to minimise misperceptions; use effective social skills in interpersonal and group settings; understand theories of attitude, change and know implications for changing the attitudes of other persons; know theories of behaviour change and understand implications for changing the behaviour of others; use skills to reduce interpersonal stress; emphasis is on the role of environmental health officers and occupational safety and health professionals.

Courses: PU42, PU44, PU45

Credit Points: 8 **Contact Hours:** 3 per week

■ SSB915 SOCIAL PSYCHOLOGY

Philosophy of social science; historical perspective; social and self and personal space; social perception and groups; research methodology; stereotypes and prejudice; conformity; persuasion; attraction and intimacy; help seeking and giving; aggression; leadership.

Course: SS07

Prerequisite: SSB003 or SSB912 or SSB932

Credit Points: 12 **Contact Hours:** 3 per week

■ SSB917 PHYSIOLOGICAL & HEALTH PSYCHOLOGY

The physiological and cognitive bases to human behaviour; the nervous and endocrine systems of the body, the brain and its functioning; learning, information processing, memory and problem solving; consciousness and altered states of consciousness; hormones and drugs and their effects on emotional expression; the development of intelligence; the relation of physiological and cognitive factors to motivation and behaviour.

Course: SS07

Prerequisites: SSB912 or 96 credit points of approved study

Credit Points: 12 **Contact Hours:** 3 per week

Incompatible with: SSB934

■ SSB918 COUNSELLING FOR HEALTH PROFESSIONALS

A study of the psychology of illness and the counselling process for advanced radiographers.

Course: PH38

Credit Points: 4 **Contact Hours:** 2 per week

■ SSB921 COUNSELLING & CRISIS MANAGEMENT

The basic theories and principles of crisis intervention methodology; the roles of nurses in counselling clients who are currently experiencing difficulties; appropriate interpersonal and specific counselling skills to assist with this therapeutic communication process; short-term strategies in crisis management.

Course: NS48

Credit Points: 8 **Contact Hours:** 3 per week

■ SSB922 SOCIAL & CULTURAL ASPECTS OF HEALTH

A broad overview of the key theoretical and practical questions currently being addressed in the field of the sociology of health and illness providing a framework for individuals wishing to develop professional skills in health education.

Course: ED50

Credit Points: 12 **Contact Hours:** 3 per week

■ SSB930 PSYCHOLOGICAL RESEARCH METHODS

An overview of the purposes and strategies of research; elementary research design; operationalising variables; descriptive statistics; distributions; measures of central

tendency and spread; standard scores and percentiles. Comparing variables through correlation; introduction to the use of SPSS.

Course: SS07

Credit Points: 12 Contact Hours: 3 per week

■ SSB931 HUMAN LEARNING AND MOTIVATION

This course examines the origins of Learning Theorists, the development of Classical, Operant and Social Learning Theory and their application in both adult and childhood settings. It investigates in some detail Social Cognitive theories of learning, focussing on Bandura's theories of modelling, expectancies and reciprocal causation. Motivation is explored through an outline of historical approaches, biological and personality theories of motivation.

Course: SS07

Prerequisites: SSB003 or SSB912 or SSB932

Credit Points: 12 Contact Hours: 3 per week

■ SSB932 INTRODUCTION TO PSYCHOLOGY IB

Introduction to physiological, cognitive and developmental bases to human behaviour. An overview of biology and behaviour; the brain, neurones and neurotransmitter; alcohol and other drugs and neurotransmitters; sensation and perception; memory and cognition; human motivation and emotion; personality: an overview of human development; theoretical and research approaches to human development; research questions about adulthood.

Course: SS07 Prerequisites: SSB003, or SSB912

Credit Points: 12 Contact Hours: 3 per week

■ SSB933 COGNITIVE PSYCHOLOGY

History and development of cognitive psychology and cognitive science; the bases of cognition; perception; representation of knowledge; memory; the development of expertise, problem-solving and reasoning; cognitive development; computer models of cognition; applications of cognitive psychology.

Course: SS07 Prerequisite: SSB003 or SSB912

Credit Points: 12 Contact Hours: 3 per week
Incompatible with: SSB937

■ SSB934 PHYSIOLOGICAL PSYCHOLOGY

The physiological and cognitive bases to human behaviour; the nervous and endocrine systems of the body, the brain and its functioning; learning, information processing, memory and problem solving; consciousness and altered states of consciousness; hormones and drugs and their effects on emotional expression; the development of intelligence; and overall the relation of physiological and cognitive factors to motivation and behaviour. Some attention is also given to comparative psychology, with reference to animal/human behaviour.

Course: SS07 Prerequisites: SSB003, or SSB912

Credit Points: 12 Contact Hours: 3 per week

■ SSB936 PERSONALITY & PSYCHOPATHOLOGY

The concept of personality and individual differences from the viewpoint of theory, research and assessment/application; functional and dysfunctional aspects of personality; the integration of traditional theoretical perspectives – psychoanalytic, trait, humanistic and social-cognitive with more modern perspectives; research methods and applications in personality studies, validity and reliability of personality profiles; biological issues in behaviour, environmental and cultural effects on personality including workplace situations, lifestyle changes.

Course: SS07 Prerequisite: SSB915

Credit Points: 12 Contact Hours: 3 per week

■ SSB937 APPLIED COGNITIVE PSYCHOLOGY

An introduction to cognitive psychology; perception processes in cognition; memory processes; problem-solving and decision-making; the development of intelligence application of cognitive psychology. Artificial intelligence, ergonomics and job design are also included as topics.

Courses: IF52, IF54, IS43, IT20

Prerequisites: SSB912 or 96 credit points of approved study

Credit Points: 12 Contact Hours: 3 per week

Incompatible with: SSB933

■ SSB939 ALCOHOL & OTHER DRUG STUDIES

An advanced unit giving special attention to the following: what is a drug?; an overview of licit and illicit drugs; states of consciousness; models of use; assessment; and referral practices, theories and research into dependency, historical examples of drug use; Australian drug use; social reinforcement of drug use; gender issues; cultural issues; physiology of drug use; power issues; crisis intervention; legal issues; mythology and drug use.

Course: SS07 Prerequisite: SSB934

Credit Points: 12 Contact Hours: 3 per week

■ SSB941 PSYCHOLOGICAL ASSESSMENT

Theory and principles underlying psychological or personal assessment and testing are involved; applications are primarily examined in personnel or organisational areas (such as the assessment of ability, interests, values, job satisfaction, commitment and morale, and other attitudinal measures); issues in clinical and counselling assessment using interviews for selection, work analysis, counselling and appraisal; practical application including project or assignment work involving a short organisational placement.

Course: SS07

Prerequisites: 36 credit points of second or third year psychology units

Credit Points: 12 Contact Hours: 3 per week

■ SSB942 INDEPENDENT STUDY (PSYCHOLOGY)

Individual students undertake one or several approved learning activities within an approved content area. Activities could include literature reviews, research (mini-thesis), project, practicum (work placement and report), classroom presentation to a selected class and other activities.

Course: SS07

Prerequisites: 36 credit points of second or third year psychology units.

Credit Points: 12 Contact Hours: 3 per week

■ SSB943 OCCUPATIONAL & VOCATIONAL PSYCHOLOGY

The well-being and productivity of individuals and groups in the workforce; the psychological and social effects of unemployment; career planning and choice; the transition from school or college to work; adjustment at work; interests, values and ethics inherent in or related to the different workplaces and professions; theories and models of career choice and development; health and adjustment at work; unemployment.

Course: SS07

Prerequisites: 36 credit points of second or third year psychology units

Credit Points: 12 Contact Hours: 3 per week

■ SSB944 INDUSTRIAL & ORGANISATIONAL PSYCHOLOGY

This unit examines human factors in job design, occupational health and safety, work and personal motiva-

tion, the assessment of suitability and/or of performance, and the qualities needed in career advancement.

Course: SS07

Prerequisites: SSB930 and at least one of SSB017 or SSB915

Credit Points: 12 Contact Hours: 3 per week

■ SSB946 COUNSELLING THEORY & PRACTICE 2

Counselling issues and approaches in relation to loss and grief, post-traumatic stress, rehabilitation, drugs and substance abuse, relationship counselling, separation, sexual abuse, suicide, cultural differences, psychosis; current approaches to counselling including process work, brief psychotherapy, languaging and the construction of problems; group therapy; group counselling; analytic psychotherapy; ethical, social and moral issues in counselling.

Course: SS07

Prerequisite: SSB008

Credit Points: 12 Contact Hours: 3 per week

■ SSB948 ADVANCED DEVELOPMENTAL PSYCHOLOGY

Primary attention is given to research methods in developmental psychology and major issues in life development will be covered including infant development, cognitive development, social development, ageing, parenthood and marriage. Students will be asked to carry out a major class research project. The primary aim is to promote the skills necessary to critically evaluate and carry out solid research in developmental psychology.

Course: SS07

Prerequisites: 36 credit points of second level psychology units including SSB005 or SSB913 as one of the units.

Credit Points: 12 Contact Hours: 3 per week

■ SSB949 INTRODUCTION TO FAMILY THERAPY

Major concepts of systemic theory as applied to families; major models of family therapy, e.g. structural, strategic, systemic, solution focused; assessment of family structures and dynamics; using therapeutic teams, e.g. reflecting team; contemporary issues in family work, e.g. gender, ethnicity, changing family foundations; specific ethical issues, e.g. confidentiality, record keeping, interaction with other systems, referral management; family dynamics.

Course: SS07

Prerequisite: SSB008

Credit Points: 12 Contact Hours: 3 per week

■ SSB950 RESEARCH DESIGN & DATA ANALYSIS

An overview of the scientific method; the use of the null hypothesis; Type I and Type II errors; issues of control; underlying assumptions; basic experimental and non-experimental design; inferential statistics; t tests; simple regression; one-way analysis of variance; correlations and correlational analysis, computer-based statistical analysis; introduction to non-parametric analyses including Chi-Square and the analysis of ranked data. Introduction to the use of SPSS in statistical analysis.

Course: SS07

Prerequisite: SSB930

Credit Points: 12 Contact Hours: 3 per week

■ SSB951 ADVANCED STATISTICAL ANALYSIS

A specialist statistical program is taught for the preparation and support of students using quantitative procedures for research; procedures are practised on data available in ACSPRI archives and/or from school and other research projects and will prepare for the collection of their own database for their major project; may be offered to postgraduate students enrolled in other QUT Schools and Faculties.

Course: SS07

Credit Points: 12

Prerequisite: SSB950

Contact Hours: 3 per week

■ SSB953 SPECIAL TOPIC

As determined by the special topic presenter in conjunction with the Head of School; usually at third year level.

Course: SS07

Prerequisites: At least 144 credit points at degree level and specific units as required

Credit Points: 12

Contact Hours: 3 per week

■ SSB960 SOCIOLOGICAL THEORY

The unit focuses on a sustained treatment of the concept of globalisation and the theories that it has provoked in contemporary sociological debates. This will entail a look at processes of globalisation in contemporary societies and state-systems. We shall look, therefore, at the new zonal groupings – the European, North-East Asian and North American – now in the process of formation; and the economic, political and cultural trends that are leading in this direction. It will also look at Australia's place in the new world order/disorder.

Course: SS07

Prerequisite: SSB000

Credit Points: 12

Contact Hours: 3 per week

■ SSB961 AUSTRALIAN SOCIETY: INTRODUCTION TO SOCIOLOGY

Placing sociology in its own socio-historical context, tracing the origins and development of the discipline and identifying the forces that shaped the various perspectives and theories of sociology and the associated research methodologies. Major theoretical perspectives are introduced, compared and contrasted, and sociological concepts, theories and debates are discussed within the context of the analysis of contemporary Australia. A particular emphasis in the course is directed towards those factors that appear to promote, constrain or influence social stability, social change and social inequality.

Course: PU49

Credit Points: 12

Contact Hours: 3 per week

■ SSB962 SURVEY METHODS

This unit introduces students to the use of social surveys in sociological research. Students will be asked to design and conduct a survey using basic statistical techniques and the SPSS computer package designed for social scientists.

Course: SS07

Credit Points: 12

Contact Hours: 3 per week

■ SSB964 SEX, GENDER & SOCIETY

This unit focuses on the history of feminist thought and contemporary perspectives with reference to issues of sociological inquiry. It examines the significance of perspectives from critical theory, structuralism, post-structuralism and action approaches in the development of feminist theory. The implications of feminist perspectives for research strategies will be considered with reference to feminist philosophers of science and metatheorists such as Sandra Harding and Dorothy Smith.

Course: SS07

Credit Points: 12

Contact Hours: 3 per week

■ SSB965 CULTURAL STUDIES

This unit will focus on culture and its role in the construction of the person and of social life. Much of the emphasis of this unit is on historical sociology and cross-cultural sociology; this strategic emphasis is taken in order to throw modern experiences into relief. We shall study a series of experiences which have only recently made their way into the sociological mainstream: the 'limit experiences' of madness, death, sexuality and criminality; and the 'miscellany' of social life – those experiences that were once thought too unimportant to study, such as swimming, walking, spitting and eating.

Credit Points: 12

Contact Hours: 3 per week

■ SSB966 INDEPENDENT STUDY (SOCIOLOGY)

This unit gives students the opportunity to work on their own research programs under supervision. Students will, either individually or in small groups, undertake a reading program in an approved content area leading to written work of around 4 000 words.

Prerequisites: 60 credit points in sociology

Credit Points: 12 **Contact Hours:**

■ SSB969 SOCIOLOGICAL THEORY & ANALYSIS

This unit confronts two central issues in sociological work: the relationship between the sphere of social positions and that of culture, and the place of theory in the broader task of sociological analysis. Theoretical approaches to the determination of cultural practices are explored from the major nineteenth century theorists to contemporary challenges from ethnomethodological, feminist, poststructural and postmodern perspectives. These approaches are also explored with reference to their relationship to research strategies.

Course: SS07

Credit Points: 12 **Contact Hours:** 3 per week

■ SSB970 ECONOMIC SOCIOLOGY

This unit examines major perspectives in the study of work and organisations and their implications for research strategies. Specifically, it looks at the development of an orthodoxy in industrial sociology, and challenges to this orthodoxy with reference to Taylorist, Fordist and Post-Fordist accounts of work organisation. The relevance of this 'discourse on industry' is examined in the light of contemporary perspectives such as feminism, poststructuralism and ethnomethodology.

Course: SS07

Credit Points: 12 **Contact Hours:** 3 per week

■ SSB971 POLITICAL SOCIOLOGY

This unit examines a variety of sociological themes which might broadly be termed 'political'. Central to the unit will be an examination of sociological conceptions of power. Typically, sociologists have examined power in connection with the state; power has frequently been regarded as flowing from the state. We shall examine these debates, and move on to recent theorisations which have begun to detach power from the state. We shall take some case studies to make these distinctions clearer, including the construction of an Australian administrative elite, the notion of 'police' in seventeenth and eighteenth century Europe, and compulsory education as the sphere of the reproduction of social relationships.

Course: SS07

Credit Points: 12 **Contact Hours:** 3 per week

■ SSB972 ETHNICITY, NATIONALISM AND CULTURAL DIVERSITY IN THE CONTEMPORARY WORLD

Ethnicity and nationalism appear to play the central role in shaping the contemporary condition in many different parts of the globe. After clarifying definitional problems, students will be given comprehensive overviews of different theories in the field of ethnicity and nationalism. The main emphasis will be placed on 'instrumental', 'primordial' and 'modernist' approaches and the sorts of explanations they offer for the powerfulness and persistence of the phenomenon. Finally, we shall look at how nationalism influences the construction of individual and collective identities by examining myths, ideology and symbolisms employed by nationalist discourses.

Credit Points: 12 **Contact Hours:** 3 per week

■ SSB973 SOCIAL THEORY AND SOCIAL CHANGE IN CONTEMPORARY EUROPE

This unit will address contemporary European social

theory and the way it reflects upon societal change. The focus will be placed on three major changes that occurred since the 1960s: firstly, the emergence of new social movements; secondly, the end of the Cold War which brought about rapid change in Eastern Europe; and thirdly, the formation of the European Union. Historical and social theoretical perspectives will be used simultaneously. It will be shown how new social movements in Eastern Europe contributed to the collapse of imposed rationality and the existing order. The end of the Cold War and the subsequent ideological and political fragmentation of Eastern Europe have profoundly affected the European landscape. The ideology of the New World Order was quickly to hand to legitimize these contemporary European as well as global events. Theory developed both fatalistic as well as critical and modest accounts of this change.

Credit Points: 12 **Contact Hours:** 3 per week

■ SSB974 SOCIOLOGY OF SCIENTIFIC KNOWLEDGE

In recent years, sociologists have come to see the value of studying the construction of scientific knowledge, overcoming a vague distaste for scientific activity and recognising the importance of understanding the major truth-providing discourse of our age. This unit will introduce students to the various methodological approaches used in the study of scientific knowledge; go through a variety of case studies which will demonstrate the 'constructedness' of such knowledge; and demonstrate the implications of such study for an understanding of our changing society.

Credit Points: 12 **Contact Hours:** 3 per week

■ SSB975 HISTORY OF THE HUMAN SCIENCES

Since the nineteenth century, a variety of sciences have emerged which have taken the activities of 'man' as their object. Economics, biology and linguistics were radically reformed, and a variety of new sciences such as sociology, psychology and anthropology joined in the attempt to make the human body and soul 'calculable', as Nietzsche put it, to translate human life into a register of numbers, graphs, and dossiers. This unit will examine the conditions which allowed for the genesis of these human sciences; examine how these sciences transformed their putative object of study; and assess the interconnection between these new forms of knowledge and new ways of administering the conduct of life.

Credit Points: 12 **Contact Hours:** 3 per week

■ SSB980 ADVANCED SOCIOLOGICAL THEORY

Wide range of contemporary sociological theories; current debates and critiques of leading social theorists.

Course: SS07

Prerequisite: SSB960

Credit Points: 12 **Contact Hours:** 3 per week

■ SSB981 ACTION RESEARCH & PROFESSIONAL PRACTICE

The implementation and monitoring of change within areas of professional practice.

Course: SS07

Prerequisite: SSB969

Credit Points: 12 **Contact Hours:** 3 per week

■ SSB989 HEALTH & THE LIFE CYCLE

An examination of changing patterns of individual wellness, illness, and mortality often coinciding with life cycle changes or 'rites of passage'; the social, cultural, anthropological and technological aspects of the pre-birth and post-death phases; analysis of the cyclical process; compared and contrasted with a psychological human developmental approach.

Courses: ED26, ED50

Credit Points: 12 **Contact Hours:** 3 per week

■ SSB990 THESIS

This unit is the first of two units whereby students select a research topic and design a related research program using appropriate quantitative/qualitative methods of analysis. Assessment of the thesis will be in accordance with University assessment procedures.

Course: SS09

Credit Points: 12 Contact Hours: 3 per week

■ SSB991 ADVANCED RESEARCH METHODS

The unit provides a critical review of the scientific methods as used in psychological research, and other issues in experimental and non-experimental research design. In addition there will be continued exposure to advanced quantitative statistical analysis techniques, including multivariate analysis of variance, multiple regression, discriminant analysis, multidimensional scaling and factor analysis. Qualitative research issues and techniques will also be considered.

Course: SS09 Prerequisite: SSB951 or equivalent

Credit Points: 12 Contact Hours: 3 per week

■ SSB992 COUNSELLING PSYCHOLOGY

This unit builds on the major undergraduate specialisation in counselling and examines professional practice issues in counselling, such as supervision and ethical practice and critical integration of theory, research and practice. Assessment by literature review and demonstration of skills.

Course: SS09

Prerequisites: SSB008 and either SSB946 or SSB949

Credit Points: 12 Contact Hours: 3 per week

■ SSB993 COGNITIVE NEUROPSYCHOLOGY

This unit helps develop an understanding of the nature and behavioural consequences of neuropathology with respect to the various stages of cognitive processing: perception and attention; learning and memory; language and concept formation; and higher-order intellectual and executive functions. The role of neuropsychological assessment in differential diagnosis is emphasised. Assessment involves evaluations of case study material, an essay and examination including multiple-choice and short-answer questions.

Course: SS09

Prerequisites: SSB933 and SSB934 and SSB941

Credit Points: 12 Contact Hours: 3 per week

■ SSB994 ADVANCED SOCIAL AND DEVELOPMENTAL PSYCHOLOGY

This unit addresses issues in developmental and social psychology in a multicultural context. Students are required to investigate in depth one of four broad areas: gender issues; temporal perspectives; the construction and impact of bias; and themes in adult development. The course proceeds through introductory lectures to student presentations on topics of interest chosen from the four broad areas above. Assessment is by the development of a research proposal, a literature review and presentation.

Course: SS09

Prerequisites: SSB913, SSB915, SSB948

Credit Points: 12 Contact Hours: 3 per week

■ SSB995 ADVANCED ORGANISATIONAL PSYCHOLOGY

This unit builds on studies in SSB944 Industrial and Organisational Psychology or its equivalent at advanced undergraduate level. Special attention will be given to human interactions at work, including concepts and issues relating to selection and assessment, work design, team development, performance measures and management, management theory and practice, role of change agents, competency-based assessment and training, community and environmental factors, the effects of organi-

sational structure and group dynamics, including conflict analysis and resolution.

Course: SS09 Prerequisites: SSB915 and SSB944

Credit Points: 12 Contact Hours: 3 per week

■ SSB996 THESIS

Continuation of SSB990.

Course: SS09

Prerequisite: SSB990

■ SSB997 RESEARCH & PROFESSIONAL DEVELOPMENT SEMINAR

This unit will be conducted in association with SSB996. Presentation of research data, analysis and associated psychological research issue will be discussed. In addition, the unit will give attention to all aspects of the Code of Professional Conduct including the provision of psychological services, legal and ethical responsibility and interaction with other professional and personnel responsible for ongoing training. Assessment will be on a presentation of a written paper covering the above areas.

Course: SS09

Prerequisite: SSB991

Credit Points: 12 Contact Hours: 3 per week

■ SSN000 COUNSELLING STUDIES 1

Provides a conceptual overview of the history of counselling and the most significant contemporary developments in the field; selected models of brief problem-oriented and solution-focused therapies, and their application across a variety of counselling contexts; the analysis of human problems in lifespan developmental and social contexts, and on the conceptual understanding, practical skills, and critical evaluation of the above therapeutic approaches.

Course: SS12

Credit Points: 12 Contact Hours: 3 per week

■ SSN001 PROFESSIONAL STUDIES 1

The development of foundational interpersonal and relationship-building skills which are viewed as relevant to the counselling process regardless of theoretical orientation. Interpersonal skills and insights are developed through an introduction to groupwork, together with micro-skills workshops involving interpersonal process recall. The development of ethical practices in counselling and an ongoing commitment to critical reflection on counselling (e.g. the ideology of counselling, the status of counselling knowledge, and issues relating to gender, ethnicity and class).

Course: SS12

Credit Points: 12 Contact Hours: 3 per week

■ SSN002 COUNSELLING STUDIES 2

The historical development of psychoanalysis; psychodynamics in counselling practice; hypnosis and unconscious phenomena in counselling; scientific credibility of psychoanalytic psychotherapy; assessment of neurosis and psychosis in counselling.

Course: SS12

Prerequisite: SSN000

Credit Points: 12 Contact Hours: 3 per week

■ SSN003 GROUP STUDIES

The development of skills and experience in organising and facilitating group work, in the context of personal support and therapeutic groups. Establishing group norms; facilitating stages of group development; responding to member behaviour and facilitator interventions; planning, implementing and evaluating ethical group work practices; dealing with defensiveness and hidden agendas; applying brief solutions-focused and other counselling theory to groups; examining the motion of the therapeutic milieu.

Course: SS12

Prerequisite: SSN001

Credit Points: 12 Contact Hours: 3 per week

■ SSN004 COUNSELLING STUDIES 3

The theory and research relating to family/marital developmental transitions, contemporary changes to family life, and the field of relational or systemic therapies. A selective emphasis is made on models which build on the knowledge and skills developed in SSN001 and SSN002. Thus major emphases will include solution-oriented and psychodynamic approaches to relationship counselling.

Course: SS12 **Prerequisite:** SSN002
Credit Points: 12 **Contact Hours:** 3 per week

■ SSN005 RESEARCH METHODS AND ISSUES
Different approaches to, and perspectives on, research used across the disciplines of social science. Philosophical and ethical issues will be related to questions of methodology. The unit consists of formal teaching input from lecturers, together with a seminar component in which students will present preliminary proposals for their independent project for group discussion and feedback.

Prerequisite: SSN002 (for Counselling major only)
Credit Points: 12 **Contact Hours:** 3 per week

■ SSN006 PROFESSIONAL STUDIES 2

This unit continues the themes of integration and reflection introduced in SSN001. It has two related parts: (a) The experience of group supervision is used as a context for reflection, critical analysis and integration in relation to both specific counselling skills and broader issues of professional practice (e.g. professional ethics, case management, assessment and referral). (b) As well as meeting fortnightly for group supervision, students attend seminars on selected topics and issues relating to the theme of critical reflection on counselling practice. This will involve perspectives from outside traditional counselling discourse (e.g. sociology, history, political theory, gender studies) and will focus on their relevance and implications for counselling practice. The student's experience of ongoing casework and the supervisory process will be used to focus critical reflection in these areas.

Course: SS12 **Prerequisite:** SSN001
Credit Points: 12 **Contact Hours:** 3 per week

■ SSN007 PROFESSIONAL STUDIES 3

Continuation of SSN006. Additionally, however, there is an emphasis on students learning and demonstrating supervision skills. The other major aspect of the subject consists of a graduate seminar in which students will present work based on their research projects.

Prerequisite: SSN005
Credit Points: 12 **Contact Hours:** 3 per week

■ SSN008 PROJECT

Students undertake an individual project of theoretical and/or empirical research in a selected area of counselling. The project is supervised by a member of the teaching staff. The completed project is to be presented in the form of a dissertation of not more than 15 000 words.

Course: SS12 **Prerequisite:** SSN006
Credit Points: 36

■ SSN009 FAMILY THERAPY PRACTICE

This unit builds upon and extends the family therapy concepts and skills provided in SSN004. Greater emphasis is placed on tailoring a family therapy role to the needs of the student's individual work context. Where practicable, students will also have the opportunity to participate in the actual practice of family therapy sessions in the School's Family Therapy and Counselling Clinic. Students will either conduct therapy sessions under supervision, or participate as members of consulting teams.

Course: SS12 **Prerequisite:** SSN004
Credit Points: 12 **Contact Hours:** 3 per week

■ SSN010 CAREER COUNSELLING

Theoretical approaches to career guidance; resources and information for career guidance; the development and implementation of career education programs; and specific counselling skills related to career guidance. Major areas of study will include developmental theory, contemporary changes to the world of work (e.g. industrial relations, workplace changes) and computer applications (e.g. the Job and Course Explorer Program). Provision is made for students to carry out independent research in the field.

Course: SS12 **Prerequisite:** SSN000
Credit Points: 12 **Contact Hours:** 3 per week

■ SSN011 INDEPENDENT STUDY

Students may elect to undertake an individual reading or research studies in an area of counselling which is of personal or professional interest, and which is not covered in other parts of the course. The project must be approved by the Course Coordinator, and will be supervised by a member of staff, with whom the student will negotiate the precise topic and mode of assessment.

Course: SS12 **Prerequisite:** SSN000
Credit Points: 12

■ SSN012 COUNSELLING AND ORGANISATIONS

Examination of helping organisations as bureaucracies; organisational responses to social change; stress within helping organisations; issues of teamwork among professional helpers; and the negotiation of effective counselling roles within organisations.

Course: SS12 **Prerequisite:** SSN000
Credit Points: 12 **Contact Hours:** 3 per week

■ SSN013 ADVANCED COUNSELLING STUDIES

This unit provides for advanced studies in a chosen area of counselling theory and practice. It is designed to either provide a greater depth of study in one of the major theoretical covered in the course (e.g. brief therapy, psychodynamic therapy, group work) or to allow specialised studies in orientations which are not heavily emphasised in the course. Such areas could include experiential therapies (e.g. Gestalt, Process-Oriented Psychotherapy, Psychodrama), Art Therapy, Couples Therapy, etc. The particular focus of this elective in any year would depend upon student interest plus the availability of suitable staff and resources.

Course: SS12 **Prerequisite:** SSN004
Credit Points: 12 **Contact Hours:** 3 per week

■ SSP017 COUNSELLING IN GROUPS

Organising and facilitating group work; establishing group norms; stages of group development; member behaviour and facilitator interventions; models and ethics of group work.

Course: SS10 **Prerequisite:** SSN004
Credit Points: 8 **Contact Hours:** 3 per week

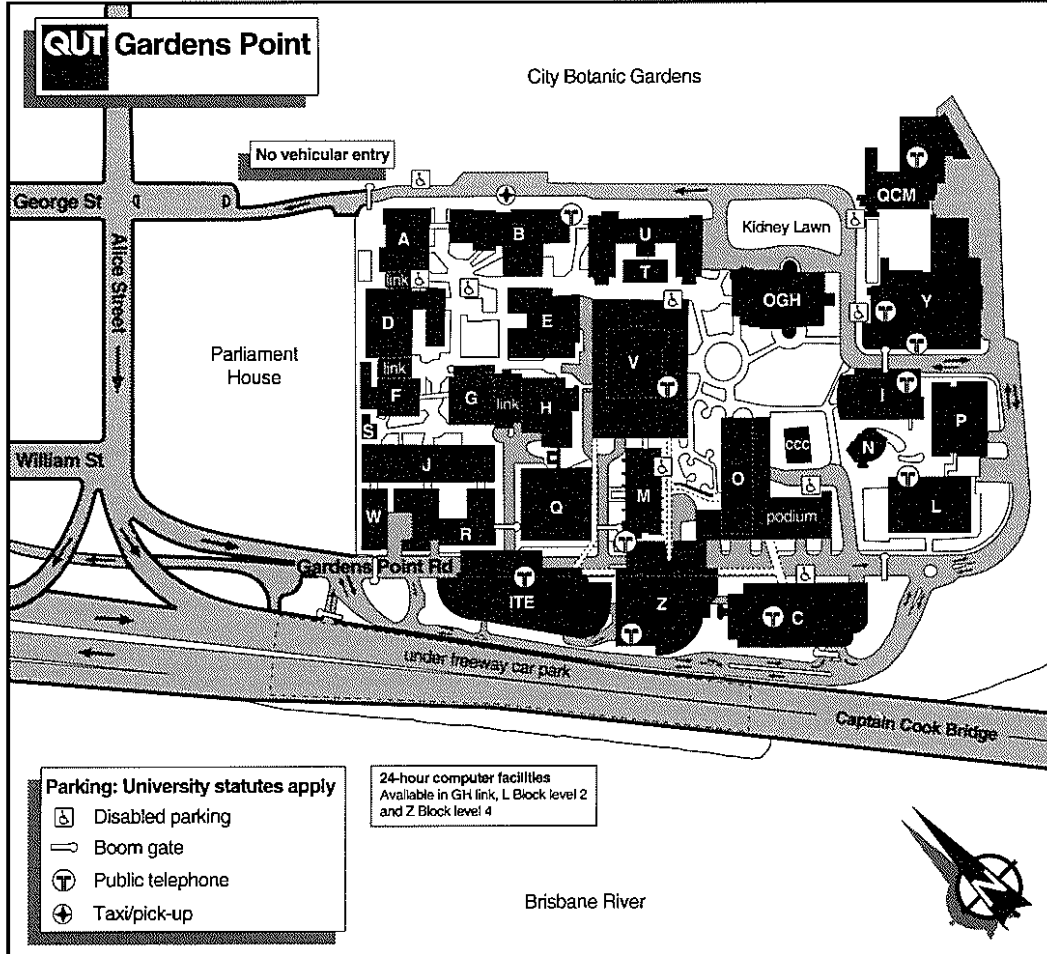
■ SVB688 PROFESSIONAL PRACTICE A

Preparing surveyors for professional practice either as employer or employee.

Course: IF52
Prerequisites: Successful completion of units totalling not less than 100 hours of weekly contact time including SVB573.
Credit Points: 4 **Contact Hours:** 2 per week

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QUT Campus Maps

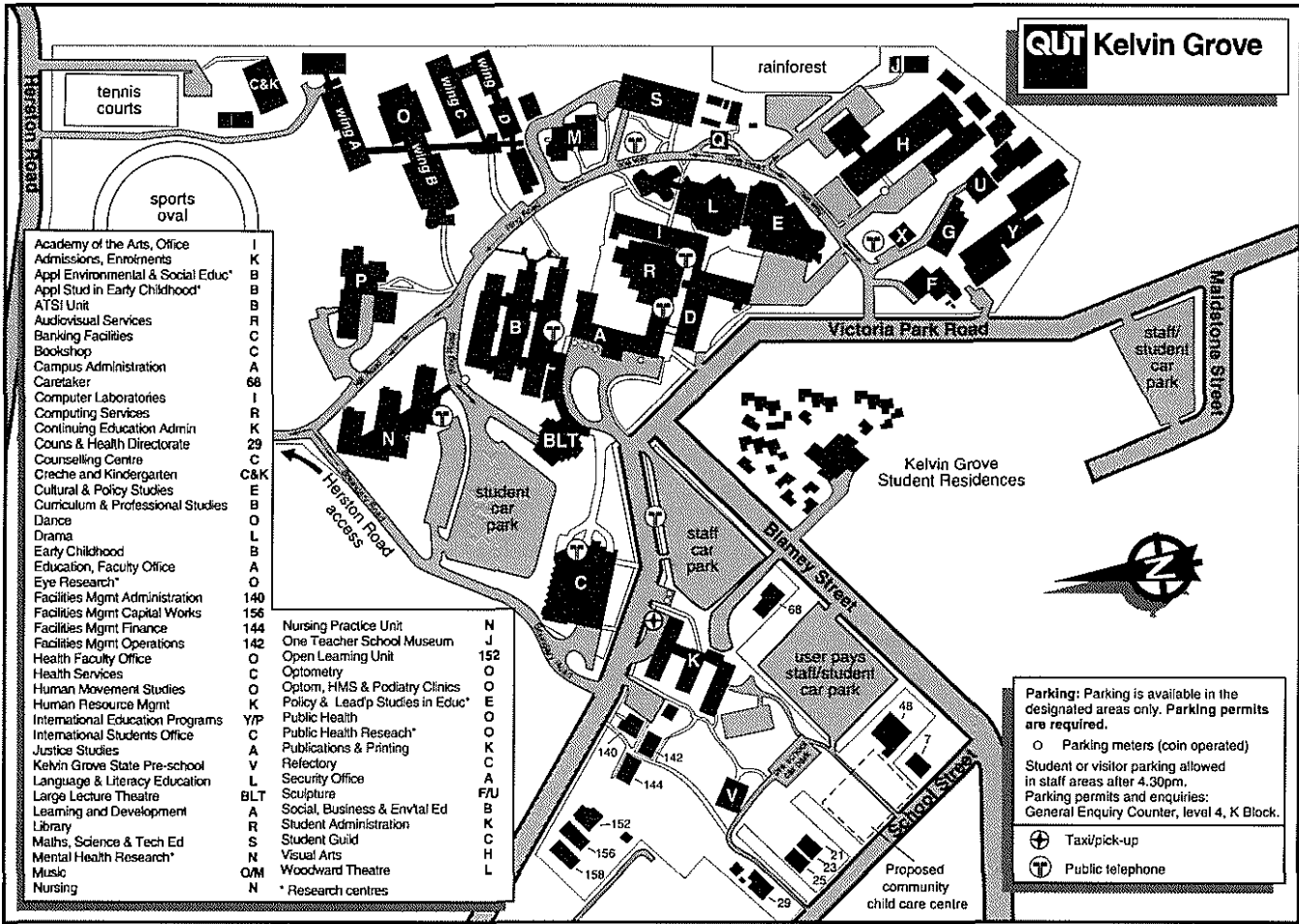


- Academic Affairs U
- Accountancy B
- ACSM B
- Administrative Services U
- A M Fraser Library V
- Arch, Interior/Indus Design D
- ATSI H
- Bookshop Y
- Buildings & Grounds Workshop G-H link
- Built Envt & Eng Faculty Office ITE
- Business B/G/Z
- Campus Administration U
- Chancery U
- Chaplaincy OGH
- Chemistry E
- Child Care Centre CCC
- Civil Engineering L
- Communication Z
- Community Building Y
- Computing Science ITE
- Computing Services V
- Construction Management L
- Counselling Centre Y
- Economics & Finance Z
- Electrical/Electronic Eng ITE
- Electron Microscope Unit R
- Enquiries U
- Finance & Facilities U
- Geology R
- Gymnasium Y
- Health Services Y
- Information Systems ITE
- Information Technology ITE
- International Students Y/U
- Kindler Theatre N
- Law C
- Law Library C
- Life Science Q/W
- Management Z
- Marketing & Internat'l Business Z
- Mathematics L
- Mechanical/Manufacturing Eng O
- Old Government House OGH
- Physics Q
- Plng & Landscape Arch D/A
- Printing V
- Qld Conservatorium of Music QCM
- Refectory Y
- Research & Advancement U/ITE
- Rural Mgmt Develop Centre Z
- Science Faculty Office R
- Security ITE
- Sports Complex I
- Structures Laboratory P
- Student Administration U
- Student Guild Y
- Surveying M

Note: Relocations will continue during 1996

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QUT Kelvin Grove



- Academy of the Arts, Office
- Admissions, Enrolments
- Appl Environmental & Social Educ*
- Appl Stud in Early Childhood*
- ATSI Unit
- Audiovisual Services
- Banking Facilities
- Bookshop
- Campus Administration
- Caretaker
- Computer Laboratories
- Computing Services
- Continuing Education Admin
- Couns & Health Directorate
- Counselling Centre
- Creche and Kindergarten
- Cultural & Policy Studies
- Curriculum & Professional Studies
- Dance
- Drama
- Early Childhood
- Education, Faculty Office
- Eye Research*
- Facilities Mgmt Administration
- Facilities Mgmt Capital Works
- Facilities Mgmt Finance
- Facilities Mgmt Operations
- Health Faculty Office
- Health Services
- Human Movement Studies
- Human Resource Mgmt
- International Education Programs
- International Students Office
- Justice Studies
- Kelvin Grove State Pre-school
- Language & Literacy Education
- Large Lecture Theatre
- Learning and Development
- Library
- Maths, Science & Tech Ed
- Mental Health Research*
- Music
- Nursing

- Nursing Practice Unit
- One Teacher School Museum
- Open Learning Unit
- Optometry
- Optom, HMS & Podiatry Clinics
- Policy & Leadp Studies in Educ*
- Public Health
- Public Health Research*
- Publications & Printing
- Refectory
- Security Office
- Sculpture
- Social, Business & Envrtal Ed
- Student Administration
- Student Guild
- Visual Arts
- Woodward Theatre
- * Research centres

Parking: Parking is available in the designated areas only. Parking permits are required.

- Parking meters (coin operated)

Student or visitor parking allowed in staff areas after 4.30pm.
 Parking permits and enquiries:
 General Enquiry Counter, level 4, K Block.

- ⊕ Taxi/pick-up
- Ⓣ Public telephone

