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Subject Synopses

SUBJECT SYNOPSES

This section provides synopses of the subjects offered in the 'Academic Programs' section of this Handbook. Additional subjects to those listed may be available as a specialised electives. For the Faculty of Business these are listed separately commencing on page 721. Details of other subjects can be obtained from the appropriate faculty or school.

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

Subject coding and numbering

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

Subject Coding

AA Academy of the Arts
AL Accounting Legal Studies
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 and Organisational Studies
CP Cultural and Policy Studies
CS Computing Science
CU Curriculum and Professional Studies
EA Early Childhood
ED Education
EE Electrical and Electronic Engineering
EP Economic and Public Policy
ES Geology
FN Finance
HL Health
HM Human Movement Studies
HR Human Resource Management and Labour Relations
HU Humanities
IF Interfaculty Courses
IN Information Technology
IS Information Systems
JS Justice Studies
LA Language and Literacy Education
LE Learning and Development
LP Legal Practice
LS Life Science
LW Law
LX Cross-Institution
MA Mathematics
MD Maths, Science and Technology Education
ME Mechanical and Manufacturing Engineering
MK Marketing, Advertising and Public Relations
MJ Media and Journalism
NS Nursing
OP Optometry
PH Physics
PL Planning and Landscape Architecture
PU Public Health
SB Social, Business and Environmental Education
SC Science
SS Social Science
SV Surveying

Level Indicators

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

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

Prerequisite and co-requisite subjects

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

[R] = Repeat-requisite; the prerequisite or co-requisite requirements may be satisfied by attempting the subject – a passing grade is not essential. A student is deemed to have attempted the subject if all assessment requirements have been attempted when registered for the subject. If failed, the repeat-requisite must be repeated at the first opportunity.

AAB001 RESEARCH PROJECT
Students undertake a substantial piece of supervised research after academic advisement. In some cases this might include practical work and associated seminars.
Credit Points: 48

AAB020 RESEARCH PROJECT
Students undertake a substantial piece of supervised research after academic advisement. In some cases this might include practical work and associated seminars.
Credit Points: 48

AAB021 ADVANCED RESEARCH METHODS
Familiarisation with a range of (mostly) quantitative methodological tools. Methodologies selelected, to a certain extent, to meet the requirements of the students in question.
Credit Points: 12 **Contact Hours:** 3 per week

AAB023 ADVANCED READINGS IN AUSTRALIAN ART
Examination of contemporary matters to do with Australian art practice and the Australian art context. Articulation of the Australian situation with international trends.
Credit Points: 12 **Contact Hours:** 3 per week

AAB051 ARTS IN SOCIETY
Images of the artist in various cultures; artistic modes (music, dance, drama, visual arts); functions of the arts (ritual, celebration, revolt); the role and place of the arts in contemporary Australian society.
Credit Points: 12 **Contact Hours:** 3 per week

AAB052 SIGNS & MEANINGS
Concepts of the sign advanced by Saussure and Peirce; how signs are organised into codes or rule-governed systems; how these systems depend on agreement amongst their users and how they rest upon a shared cultural background; how signs interact with the cultural and personal experience of the user (Barthes' notions of connotation, myth and symbol; Jacobson's metaphor/metonymy dichotomy); the function of ideology particularly in relation to the ideas advanced by Raymond Williams and Barthes.
Credit Points: 12 **Contact Hours:** 3 per week

AAB100 COMPOSITION 1
Introduction to the domain of composition, providing a sound grounding in contemporary approaches to dance making including: developing a personal movement language and an investigation of how dance presents/creates meaning.
Credit Points: 8 **Contact Hours:** 3 per week

AAB101 DANCE KINESIOLOGY & ALIGNMENT
The anatomical structure and alignment techniques, their function and application to increase dance technique facility and lessen dance injuries.
Credit Points: 12 **Contact Hours:** 3 per week

AAB102 CONTEMPORARY TECHNIQUE 1
The basic contemporary dance vocabulary; study of Graham, Cunningham or Limon Technique with particular reference to development of strength, flexibility and placement of spine and limbs. Basic combinations of movements; analysis of dance sequences.
Credit Points: 24 **Contact Hours:** 7.5 per week

AAB103 CLASSICAL TECHNIQUE 1
Review and consolidation of the fundamental technique and its application designed to reinforce and develop an appropriate range of technical skills within the four tier practical level system.
Credit Points: 12 **Contact Hours:** 6 per week

AAB104 MUSIC
Elements of music: concepts of beat, accent, rhythm and phrasing; study of nineteenth and twentieth century musical styles; notation, score reading, vocal and improvisation studies.
Credit Points: 8 **Contact Hours:** 3 per week

AAB105 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.
Credit Points: 8 **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/contemporary dance.
Prerequisite: AAB105
Credit Points: 12 **Contact Hours:** 3 per week

AAB107 CONTEMPORARY TECHNIQUE 2
Technical work including off-balance turns and rapid changes of weight, level and direction; exploration of rhythm. Continued emphasis on performance of sequence work.
Prerequisite: AAB102
Credit Points: 24 **Contact Hours:** 7.5 per week

AAB108 CLASSICAL TECHNIQUE 2
Consolidation of technique; study of variety of selected approaches to classical ballet and development of appropriate range of technical skills within the four-tier practical level system.
Prerequisite: AAB103
Credit Points: 12 **Contact Hours:** 4.5 per week

AAB109 PRACTICUM
Consolidation of the student's knowledge and skills in direct artistic experience in real contexts.
Credit Points: 12

AAB110 COMPOSITION & PRODUCTION TECHNIQUES
The conceptual base of the medium and of the heuristic principles governing the making of dance; exploration of more formal dynamic, temporal and spatial structures, deemed historically appropriate as a means of structuring movement and conveying a choreographer's intention. Study and practice in elements of theatre production; lighting, sound and costume.
Prerequisite: AAB100
Credit Points: 12 **Contact Hours:** 5 per week

AAB111 DANCE RESEARCH
Practical training in scholarly methods and professional skills.
Credit Points: 8 **Contact Hours:** 2 per week

AAB112 HISTORY OF AUSTRALIAN THEATRE DANCE
A study of the development of dance as an art form in Australia in the twentieth century.
Credit Points: 8 **Contact Hours:** 3 per week

AAB113 WRITINGS ON DANCE
Strategies for reading and writing exposition and argument with emphasis on clarity of expression and presentation of thought.
Prerequisites: AAB111 and AAB114
Credit Points: 12 **Contact Hours:** 2 per week

AAB114 DANCE IN AUSTRALIAN SOCIETY
The ritual, artistic and social functions of dance in contemporary Australian society.
Prerequisite: AAB051
Credit Points: 12 **Contact Hours:** 3 per week

AAB115 PROFESSIONAL DEVELOPMENT STUDIES
Preparation for the dance industry; preparation of curriculum vitae and funding applications; auditions; contracts; press relations and management.
Credit Points: 8 **Contact Hours:** 2 per week

AAB116 DANCE IN THE COMMUNITY
Introductory studies of dance in the community; exploring the role of dance in the community; procedures for establishing a dance project; basic program planning and teaching approaches for community dance.
Credit Points: 12 **Contact Hours:** 3 per week

AAB117 DANCE IN EDUCATION
Study of philosophy of the arts in education and of dance in particular; role and profile of an arts educator; investigation of domains involved in arts learning.
Credit Points: 16 **Contact Hours:** 3 per week

AAB118 DANCE INDEPENDENT STUDY
Students are required to design and carry through a major program on their own initiative after negotiation and consultation with lecturing staff.
Credit Points: 16

AAB119 JAZZ & FOLK DANCE
A study of jazz and folk dances – their historical and cultural contexts, incorporating practical experiences and analytical knowledge of dance fashions in a social context.
Credit Points: 12 **Contact Hours:** 3 per week

AAB151 CONTEMPORARY TECHNIQUE 1
The basic contemporary dance vocabulary (contraction, release); study of Graham Technique with particular reference to development of strength, flexibility and placement of spine and limbs.
Credit Points: 12

AAB152 CONTEMPORARY TECHNIQUE 2
Continuation of AAB102. Basic combinations of movements; analysis of dance sequences.
Prerequisite: AAB102
Credit Points: 12

AAB153 ADVANCED PERFORMANCE 1
Attainment of outstanding practical skills combining use of aesthetic quality and artistry.
Prerequisite: Grade of 6 or 7 in AAB102 and AAB103.
Credit Points: 20

AAB154 ADVANCED PERFORMANCE 2
Continuation of AAB153.
Prerequisite: AAB113
Credit Points: 36

AAB155 ADVANCED ANALYSIS 1: BALLET
The skills involved in the aesthetic appreciation and analysis of the masterworks of ballet.
Co-requisites: AAB111 and AAB114
Prerequisites: Grade of 5 or above in AAB105 and AAB112.
Credit Points: 12 **Contact Hours:** 3 per week

AAB156 ADVANCED ANALYSIS 2: MODERN DANCE
The aesthetic appreciation and analysis of the masterworks of modern dance.
Co-requisite: AAB113
Prerequisite: Grade of 5 or above in AAB105 and AAB112.
Credit Points: 12 **Contact Hours:** 3 per week

AAB157 ADVANCED ANALYSIS 3: COMPARATIVE STUDY
The skills involved in the aesthetic appreciation and analysis of the masterworks or ballet or modern dance used to engage in a comparison of various features of specific dances chosen for detailed study.
Prerequisite: Grade of 5 or above in AAB105, AAB155 or 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.
Co-requisite: AAB107
Credit Points: 8 **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.
Co-requisites: AAB155 and AAB158
Credit Points: 12 **Contact Hours:** 5 per week

AAB160 ADVANCED COMPOSITION 3
The links between technology and dance in the areas of light and sound – the principal elements of dance design; a major individual project that involves the application and integration of a range of technological devices/processes.
Co-requisites: AAB156 and AAB159
Credit Points: 12 **Contact Hours:** 5 per week

AAB161 DANCE IN THE COMMUNITY 1
Indepth studies in teaching dance: program planning and teaching approaches for specific dance groups.
Prerequisite: AAB116
Credit Points: 16 **Contact Hours:** 3 per week

AAB162 DANCE IN THE COMMUNITY 2
Students are required as a group to initiate, devise, develop and produce a dance within the community with the emphasis on management skills.
Prerequisite: AAB161
Credit Points: 16 **Contact Hours:** 3 per week

AAB163 DANCE IN THE COMMUNITY 3
Students are required to individually initiate, devise, develop and produce a dance project within the community with the emphasis on the creativity and production of the project.
Prerequisite: AAB162
Credit Points: 16 **Contact Hours:** 3 per week

AAB164 DANCE ELECTIVE
Students are required to select topics for further study in consultation with the Course Coordinator.
Credit Points: 8

AAB202 ACTING 1
Stanislavski: exercise work in realistic acting in order to eliminate bad habits and theatrical dishonesty. Realism: acting classes involving selected extracts from a modern realistic play, finding the playwright's truth, development of appropriate interpretive acting skills; Brecht: lectures and practice on distancing techniques.
Credit Points: 8 **Contact Hours:** 4 per week

AAB203 ACTING 2
Focus on Shakespeare; work on verse, small scenes and soliloquies.
Prerequisite: AAB202
Credit Points: 12 **Contact Hours:** 4 per week

AAB204 VOICE & MOVEMENT 1
Body awareness; sense of space; breathing; expression and articulation; text and context; research.
Credit Points: 8 **Contact Hours:** 4 per week

AAB205 VOICE & MOVEMENT 2
Awareness through movement; freeing the natural voice; development of holistic response to text; exploration of physical and emotional levels in characterisation; review of research relative to the study of voice and movement; alternative teaching styles; comparative analysis and personal synthesis.
Prerequisite: AAB204
Credit Points: 8 **Contact Hours:** 3 per week

AAB206 STAGECRAFT 1
Scenery construction; stage properties: budget and purchase procedures, hiring and borrowing, categorisation, storage and use; stage lighting: electricity, rigging and focusing of lanterns, maintenance and repairs, operating principles; stage costumes: hire of costumes, principles of pattern styling, use of sewing machine, fabric construction, the use of fabrics to create costumes.
Credit Points: 8 **Contact Hours:** 4 per week

AAB207 STAGECRAFT 2
Theatre sound: the need for sound effects, use of live and recorded effects, use of stage sound equipment. Stage management: the range of stage management tasks, the role the stage manager in coordinating and enhancing theatre production. Basic lighting design: use of colour and lighting angles, painting with light, computer controlled equipment, stage lighting organisation and documentation. Theatre administration: funding applications; front-of-house organisation, systems of ordering, purchasing, petty cash.
Credit Points: 8 **Contact Hours:** 4 per week

AAB208 ELEMENTS OF DRAMA
Minimal drama: fiction plus tension; the three dimensions of expression: light/dark, movement/stillness, sound/silence; the three elements of dramatic form: space, time, communication; symbols and meaning; distance from the action; from ideas to communication.
Credit Points: 12 **Contact Hours:** 4 per week

AAB209 INTRODUCTORY THEATRE STUDIES
An introduction to shaping the theatrical event as director, designer, playwright.
Credit Points: 8 **Contact Hours:** 4 per week

AAB211 DEVELOPMENT OF THEATRE 1
Origins of theatre: Greek drama/theatre; medieval theatres in Europe; theatre in Asia; theatre of the English Renaissance; theatre of the Italian Renaissance; royal theatre of France and England; England's popular theatre of the nineteenth century.
Credit Points: 8 **Contact Hours:** 3 per week

AAB212 DEVELOPMENT OF THEATRE 2
Realism; naturalism; symbolism/expressionism; epic theatre; absurd; current theatre; south-east Asian theatre; Australian theatre to World War 2; Australian theatre; community theatre.
Prerequisite: AAB211
Credit Points: 8 **Contact Hours:** 3 per week

AAB213 DIRECTING
Functions of the director from casting to rehearsal to performance; organisation procedures and relationship to other production staff; the director's role as intermediary between text, actor and audience; differing definitions of that role; personal style; seminars on contemporary directors.
Prerequisite: AAB209
Credit Points: 8 **Contact Hours:** 3 per week

AAB214 DRAMA PROCESS
Workshops involving individual, face-to-fact and group roleplay; participant enrolment, leader-in-role and intervention; identification with role; negotiation, devising and consequent decision making; the operation and management of dramatic tension and resolution; structuring for the theme and for the dramatic moment; distancing devices; reflection, re-enactment and remaking.
Prerequisite: AAB208
Credit Points: 8 **Contact Hours:** 3 per week

AAB215 DESIGN
Establishing the scene; staging alternatives; lighting and scenery; costume design; scale models and drawings.
Prerequisite: AAB208
Credit Points: 8 **Contact Hours:** 3 per week

AAB216 PLAYWRIGHTING
Dramatic structure: tension, climax and resolution; focus and audience distance; fitting an appropriate style to a dramatic theme; the relationship between action, theme and character; developing a scenario; imagery: the relationship between the visual and the linguistic; dramatic writing, dialogue and staging.
Prerequisite: AAB209
Credit Points: 8 **Contact Hours:** 3 per week

AAB217 ARTS RESEARCH & EVALUATION 1
Accessing and collation of pertinent resources, critical observation techniques; case study methods.
Credit Points: 12 **Contact Hours:** 3 per week

AAB218 ARTS RESEARCH & EVALUATION 2
Study of a major play in production (or other project involving performance) from one particular frame of reference.
Prerequisite: AAB217
Credit Points: 8 **Contact Hours:** 2 per week

AAB219 PROFESSIONAL STUDIES
Theatre and Australian society; funding and status of Australian theatre; different manifestations: professional, amateur, community; historical patterns; models of initiatives in theatre; designing for a com-

munity need; preparing a curriculum vitae; job applications, meeting procedures.
Credit Points: 12 **Contact Hours:** 3 per week

AAB220 THEATRE STUDIES OPTION
Specialised work in one of the theatre studies areas: directing, design, playwrighting or theatre in education, or a related area by negotiation.
Credit Points: 8 **Contact Hours:** 2 per week

AAB225 PRACTICUM 1
Students are provided with an opportunity to practise as artists within a specific community and to participate in an artistic/advocacy project in the community. Elective studies influence the emphasis of the practicum, which involves one of the three main communities identified: artistic, public, institutional.
Credit Points: 12

AAB226 PRACTICUM 2
See AAB225.
Prerequisite: AAB225
Credit Points: 12

AAB227 PRACTICUM 3
See AAB225.
Prerequisite: AAB226
Credit Points: 8

AAB241 VOICE 1
The psychological and physiological underpinning of the voice; structure of texts; development of voice and speech; development of an introductory training program.
Prerequisite: AAB205
Credit Points: 8 **Contact Hours:** 2 per week

AAB242 VOICE 2
The structure of blank verse; the development of English; importance of individual words and sounds in written and spoken texts; the use of performance space; development of voice and speech.
Prerequisite: AAB241
Credit Points: 8 **Contact Hours:** 2 per week

AAB243 VOICE 3
Development of advanced vocal techniques; development of audition materials.
Prerequisite: AAB242
Credit Points: 8 **Contact Hours:** 2 per week

AAB244 VOICE 4
Development of advanced vocal techniques; development of audition materials suitable for a variety of venues.
Prerequisite: AAB243
Credit Points: 8 **Contact Hours:** 2 per week

AAB245 MOVEMENT
Physical theatre genres: Asian forms including Kabuki, Noh, Kalthakali; European forms including Greek, Commedia, Restoration. Movement arts: stage combat, T'ai Ch'i; acrobatics and tumbling.
Prerequisite: AAB205
Credit Points: 8 **Contact Hours:** 4 per week

AAB246 MUSIC & DANCE
Physical skills including: elongation of the spine; movement from the centre; alignment; articulation; opposition; lift and placement; basic combinations of locomotor movements; elements of dance; style, performance skills. Aural comprehension and notation of rhythm and pitch; vocal technique; principles of style.
Credit Points: 12 **Contact Hours:** 3 per week

AAB247 ACTING 3
Study of differing philosophies of theatre and their relation to performance; exercises, research and practical work on selected texts. Introduction to acting for the camera.
Prerequisite: AAB203
Credit Points: 12 **Contact Hours:** 4 per week

AAB248 ACTING 4
Research, rehearsal and performance.
Prerequisite: AAB247
Credit Points: 16 **Contact Hours:** 4 per week

AAB249 DANCE STYLES
A range of dance styles and their corresponding conceptual and historical bases; performance skills; performance abilities.
Prerequisite: AAB246
Credit Points: 8 **Contact Hours:** 2 per week

AAB250 THEATRE PRODUCTION
Specific major tasks of acting or management duties for two or more productions by the drama program, requiring a high level of personal responsibility.
Credit Points: 36

AAB261 THE ARTS ENVIRONMENT
Introduction to the context for performing 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.
Credit Points: 12 **Contact Hours:** 3 per week

AAB262 ARTS FINANCE
Planning and monitoring the use of money in the arts, including the preparation of funding submissions in non-profit situations.
Credit Points: 12 **Contact Hours:** 2 per week

AAB263 ARTS MARKETING
General principles of marketing; the marketing plan; applications in performing arts situations; planning, targeting, costing and implementation up to point of sale contact in the front of house.
Credit Points: 12 **Contact Hours:** 3 per week

AAB264 PERFORMING ARTS PROMOTIONS
Publicity, public relations and advertising in the arts context. Practical skills for low-budget operations.
Credit Points: 8 **Contact Hours:** 2 per week

AAB265 ISSUES IN ARTS MANAGEMENT
Fundraising and sponsorship; law and the arts; issues and selected current issues, eg. multiculturism, tourism.
Credit Points: 12 **Contact Hours:** 3 per week

AAB266 PRODUCTION PLANNING
Opportunity for students to apply the theory and practice learnt in other subjects to production situations; the planning and initial preparations for productions being undertaken in theatre production.
Credit Points: 8 **Contact Hours:** 2 per week

AAB281 TECHNICAL ASPECTS OF DESIGN
Analysis of text for design purposes – set, costumes and props; adapting to space; the influence of particular staging systems on design choices; scale drawings and models; lighting and the set.
Credit Points: 8 **Contact Hours:** 2 per week

AAB282 LIGHTING 1
Design theory; lighting control; communication in the production team.
Prerequisite: AAB207
Credit Points: 8 **Contact Hours:** 2 per week

AAB283 LIGHTING 2
Advanced theory; procedures and planning; current practice.
Prerequisite: AAB282
Credit Points: 8 **Contact Hours:** 3 per week

AAB284 STAGE MANAGEMENT 1
Coordination; pre-production planning; rehearsals; the bump in; technical rehearsal.
Prerequisite: AAB207
Credit Points: 12 **Contact Hours:** 2 per week

AAB285 STAGE MANAGEMENT 2
Wardrobe management and stage props management. Elementary design, working drawings/patterns, construction techniques and general maintenance.
Credit Points: 12 **Contact Hours:** 4 per week

AAB286 STAGE MANAGEMENT 3
Advanced practical stage management exercises including production management and tour management and planning.
Credit Points: 12 **Contact Hours:** 2 per week

AAB287 THE STAGE SET
Interpreting working drawings; costing and materials selection; safety procedures; construction.
Prerequisite: AAB207
Credit Points: 8 **Contact Hours:** 3 per week

AAB288 SOUND 1
Design theory; sound control; communication in the production team.
Prerequisite: AAB207
Credit Points: 12 **Contact Hours:** 3 per week

AAB302 CHILDREN'S PLAY TO PERFORMANCE
The function of children's dramatic play, role taking and fantasy in social development from ages 1 to 18.
Credit Points: 8 **Contact Hours:** 3 per week

AAB303 THEATRE IN EDUCATION
The defining characteristics of theatre-in-education and participatory theatre forms; skills in group leadership, negotiation of ideas and forms, planning and conducting drama events; dynamics of leadership including management of space, time, energy levels and group rhythms.
Credit Points: 8 **Contact Hours:** 3 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; various modes of knowing, including propositional knowledge and tacit understanding.
Credit Points: 8 **Contact Hours:** 3 per week

AAB305 ADVANCED DRAMA PROCESS
The nature of experiential drama; pace and time; shape and externals; reflection and refraction; evaluation; devising process drama.
Credit Points: 8 **Contact Hours:** 3 per week

AAB321 ADVANCED DESIGN 1
Research project on the origins and development of design and theatre; practical design involvement in a drama production.
Prerequisite: AAB215
Credit Points: 12

AAB322 ADVANCED DESIGN 2
Analysis of the philosophy and practice of a specific designer; assignment to a major production as assistant designer.
Prerequisite: AAB321
Credit Points: 12

AAB323 ADVANCED DESIGN 3
Secondment as designer or associate designer to a professional, amateur or community theatre project (approximately 7 weeks).
Prerequisite: AAB322
Credit Points: 24

AAB324 ADVANCED DIRECTING 1
Research project on the origins and development of the role of the director; practical work assisting the director of a production.
Prerequisite: AAB213
Credit Points: 12

AAB325 ADVANCED DIRECTING 2
Analysis of the philosophy and practice of a major director; assignment to a major production as assistant director.
Prerequisite: AAB324
Credit Points: 12

AAB326 ADVANCED DIRECTING 3
Secondment as director or associate director to a professional, amateur or community theatre project (approximately 7 weeks).
Prerequisite: AAB324
Credit Points: 24

AAB327 ADVANCED PLAYWRIGHTING 1
Secondment to a major production within or outside the University as dramaturg (researcher and interpretative consultant). Scriptwriting project.
Prerequisite: AAB216
Credit Points: 12

AAB328 ADVANCED PLAYWRIGHTING 2
Study of a selected scriptwriting style. A major playwrighting project in any dramatic medium.
Prerequisite: AAB327
Credit Points: 12

AAB329 INDEPENDENT STUDY: DRAMA
Students are required to devise an outline of study and/or action after negotiation and consultation with lecturing staff and carry out the approved program with regular tutorial consultation.
Credit Points: 24

AAB410 ART CURRICULUM DESIGN & DEVELOPMENT
An overview of 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.
Credit Points: 12 **Contact Hours:** 3 per week

AAB411 DRAMA ACROSS THE CURRICULUM
Processed models of curriculum applied to drama method; drama methods for the classroom; 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.
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. The subject seeks to develop genuine enquiry and the attainment of appropriate levels of competence of techniques, materials and resources to bring ideas to fruition.

Credit Points: 12 **Contact Hours:** 4 per week

AAB422 PAINTING/DRAWING/FIBRE STUDIES

Aesthetic and media competencies in painting/drawing/fibre studies.

Credit Points: 12 **Contact Hours:** 6 per week

AAB423 COMPUTER GRAPHICS/ INTERMEDIA STUDIES

Aesthetic and media competencies in computer graphics and intermedia studies.

Credit Points: 8 **Contact Hours:** 4 per week

AAB424 CERAMIC/SCULPTURE STUDIES

Aesthetic and media competencies in ceramic and sculpture studies; an understanding of ceramic and sculpture art forms within historical and cultural contexts.

Credit Points: 8 **Contact Hours:** 4 per week

AAB425 PHOTOGRAPHY/PRINTMAKING STUDIES

Aesthetic and media competencies in photography and printmaking studies.

Credit Points: 8 **Contact Hours:** 4 per week

AAB426 ADVANCED DISCIPLINE STUDY 1 – 2D STUDIES

Development of individual practice in the visual arts. Undertaking of projects within and outside the studio with a view to understanding the relationships between the historical, cultural, aesthetic and productive aspects of 2 dimensional visual art forms. Development of a personal philosophical basis for art practice; professional attitudes and innovative thinking; research into the knowledge and resources available to the 2 dimensional artist; development of the ability to evaluate aesthetic qualities in student's own work.

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

AAB427 ADVANCED DISCIPLINE STUDY 2 – 2D STUDIES

Development of individual practice in the visual arts. Undertaking of projects within and outside the studio with a view to understanding the relationships between the historical, cultural, aesthetic and productive aspects of 2 dimensional visual art forms. Development of a personal philosophical basis for art practice; professional attitudes and innovative thinking; research into the knowledge and resources available to the 2 dimensional artist; development of the ability to evaluate aesthetic qualities in student's own work.

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

AAB428 ADVANCED DISCIPLINE STUDY 1 – 3D STUDIES

Development of individual practice in the visual arts. Undertaking of projects within and outside the studio with a view to understanding the relationships between the historical, cultural, aesthetic and productive aspects of 3 dimensional visual art forms. Development of a personal philosophical basis for art practice; professional attitudes and innovative thinking; research into the knowledge and resources available to the 3 dimensional artist; development of the ability to evaluate aesthetic qualities in student's own work.

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

AAB429 ADVANCED DISCIPLINE STUDY 2 – 3D STUDIES

Development of individual practice in the visual arts. Undertaking of projects within and outside the studio with a view to understanding the relationships between the historical, cultural, aesthetic and productive aspects of 3 dimensional visual art forms. Development of a personal philosophical basis for art practice; professional attitudes and innovative thinking; research into the knowledge and resources available to the 3 dimensional artist; development of the ability to evaluate aesthetic qualities in student's own work.

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

AAB430 ADVANCED DISCIPLINE STUDY 1 – IMAGING IN TECHNOLOGY

Development of individual practice in the visual arts. Undertaking of projects within and outside the studio with a view to understanding the relationships between the historical, cultural, aesthetic and productive aspects of 3 dimensional visual art forms. Development of a personal philosophical basis for art practice; professional attitudes and innovative thinking; research into the knowledge and resources available to the 3 dimensional artist; development of the ability to evaluate aesthetic qualities in student's own work.

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

AAB431 ADVANCED DISCIPLINE STUDY 2 – IMAGING IN TECHNOLOGY

Development of individual practice in the visual arts. Undertaking of projects within and outside the studio with a view to understanding the relationships between the historical, cultural, aesthetic and productive aspects of 3 dimensional visual art forms. Development of a personal philosophical basis for art practice; professional attitudes and innovative thinking; research into the knowledge and resources available to the 3 dimensional artist; development of the ability to evaluate aesthetic qualities in student's own work.

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

AAB432 ADVANCED DISCIPLINE STUDY 1 – INTERMEDIA STUDIES

Development of individual practice in the visual arts. Undertaking of projects within and outside the studio with a view to understanding the relationships between the historical, cultural, aesthetic and productive aspects of 3 dimensional visual art forms. Development of a personal philosophical basis for art practice; professional attitudes and innovative thinking; research into the knowledge and resources available to the 3 dimensional artist; development of the ability to evaluate aesthetic qualities in student's own work.

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

AAB434 ART CURRICULUM & TEACHING STUDIES 1

Builds on CUB301 to give a greater understanding of the nature of art as an applied curriculum area. Provides insights into relevant Queensland syllabus and curriculum documents, develops competencies in planning and teaching and makes close links with teaching practice.

Prerequisites: CUB301 and at least 48 credit points in each relevant discipline area.

Credit Points: 8 **Contact Hours:** 3 per week

AAB435 ART CURRICULUM & TEACHING STUDIES 2

Studied in association with CUB302. Provides opportunities for consideration and practical application of broad curricular and teaching principles and systems policies within the more specific context of this cur-

riculum area. As with CUB302, establishes principles which are used to guide school experience during teaching practice and also as a beginning teacher.
Prerequisite: AAB434
Co-requisites: CUB302, EDB302
Credit Points: 12 **Contact Hours:** 3 per week

AAB436 ART CURRICULUM & TEACHING STUDIES 3

Last in the Curriculum and Teaching Studies series with a major focus on contemporary issues and emerging trends pertaining to curriculum development in this curriculum area. Includes study of advanced planning and teaching strategies and provides opportunities for application of planning and teaching skills during practice teaching.
Prerequisites: AAB434, AAB425, CUB302
Credit Points: 8 **Contact Hours:** 3 per week

AAB437 DRAMA CURRICULUM & TEACHING STUDIES 1

Builds on CUB301 to give a greater understanding of the nature of drama as an applied curriculum area. Provides insights into relevant Queensland syllabus and curriculum documents, develops competencies in planning and teaching and makes close links with teaching practice.
Prerequisites: CUB301 and at least 48 credit points in each relevant discipline area.
Credit Points: 8 **Contact Hours:** 3 per week

AAB438 DRAMA CURRICULUM & TEACHING STUDIES 2

Studied in association with CUB302. Provides opportunities for consideration and practical application of broad curricular and teaching principles and systems policies within the more specific context of this curriculum area. As with CUB302, establishes principles used to guide school experience during teaching practice and also as a beginning teacher.
Prerequisite: AAB437
Co-requisites: CUB302, EDB302
Credit Points: 12 **Contact Hours:** 3 per week

AAB439 DRAMA CURRICULUM & TEACHING STUDIES 3

Last in the Curriculum and Teaching Studies series with a major focus on contemporary issues and emerging trends pertaining to curriculum development in this curriculum area. Includes study of advanced planning and teaching strategies and provides opportunities for application of planning and teaching skills during practice teaching.
Prerequisites: MDB356, MDB357, CUB302
Credit Points: 8 **Contact Hours:** 3 per week

AAB440 VISUAL AWARENESS & COMMUNICATION

Psychological reactions to being visually aware; classifying explanatory diagrams/pictures as educative symbols; aesthetic response; interpretation of personal vision; strategies for designing visual messages; analysis, visual exploration and interpretation of painting, sculpture, advertising; the environment and the action and reaction of the viewer.
Credit Points: 12 **Contact Hours:** 3 per week

AAB442 HISTORY OF AUSTRALIAN ART

Development of Australian art since its human settlement 40,000 years ago; the visual arts since European settlement, contemporary Western and Aboriginal art.
Credit Points: 12 **Contact Hours:** 3 per week

AAB443 PHOTOGRAPHY AS VISUAL ART

Exploration of the art potential of the camera and darkroom processing; the photograph as art; creation of art photography, manipulation of photographic images; the history and emergence of photography as an art form; the study of eminent photographers.
Credit Points: 12 **Contact Hours:** 3 per week

AAB444 VISUAL ARTS OF ASIA

As a reflection of the maker's culture, the visual arts of Asia provides one means of understanding these diverse cultures. Historical backgrounds, philosophical beliefs and trade have influenced the symbolism, forms, techniques and uses of these various artefacts. Development of an understanding and awareness of non-western art forms.
Credit Points: 12 **Contact Hours:** 3 per week

AAB445 CLAY MATERIALS

The development of ceramic knowledge, concepts and technical skills related to both practical and artistic considerations; an investigation of selected historical ceramic eras; understanding the relationship between ceramics and the maker's culture; development of personal imagery and design through a variety of construction, decoration and firing procedures.
Credit Points: 12 **Contact Hours:** 3 per week

AAB446 PAINTING STUDIES

Exploratory work in space, form, colour and mass; foundations and implications of contemporary directions in painting; criticism and analysis.
Credit Points: 12 **Contact Hours:** 3 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. Incompatible with Art major at Diploma of Teaching (Secondary Art) level.
Credit Points: 12 **Contact Hours:** 3 per week

AAB449 EDUCATIONAL DRAMA

Practical introduction to educational drama techniques available to all teachers: 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.
Credit Points: 12 **Contact Hours:** 3 per week

AAB450 STUDIES IN GRAPHIC PRINTMAKING

Exploration of the three areas of printmaking: relief, intaglio and planographic; practice and research relative to the aesthetic, technical and design values of printmaking.
Credit Points: 12 **Contact Hours:** 3 per week

AAB451 FIBRE CONSTRUCTION

Practical studies of fibre and fabric construction with a focus on historical and contemporary media, utilisation of fibre/textile materials and processes to develop contemporary 3 dimensional objects.
Credit Points: 12 **Contact Hours:** 3 per week

■ **AAB452 CONTEMPORARY SURFACE DESIGN FOR TEXTILES**

Investigation of the practical application of designs on fabric including indigo dyeing, shibori, batik, block printing, screen printing with particular emphasis on the interpretation of contemporary designs.

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

■ **AAB453 COMPUTER GRAPHICS IN THE CURRICULUM**

Operational procedures; exploration of software; processing characteristics and applications; image generation; capture and recording; animation; presentation and authoring systems; computers and society.

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

■ **AAB454 ADVANCED THREE-DIMENSIONAL STUDIES**

The role of drawing and the preparation of 3 dimensional design both as a point of reference, stimulus or source, and as working drawings; work with a variety of media; development of programs suitable for implementation in the school situation.

Prerequisite: Studies in art at Diploma of Teaching level or equivalent experience.

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

■ **AAB500 CHIEF PRACTICAL STUDY 1**

Development of a strong and reliable technique, interpretation and performance skills on the chief practical instrument or voice; performance seminar; participation in performance activities; recital.

Credit Points: 16 **Contact Hours:** 2 per week

■ **AAB501 CHIEF PRACTICAL STUDY 2**

Exploration of established and new repertoire on the chief practical instrument or voice. Continued development of technique, together with the acquisition of analytical and interpretive skills; participation in performance activities; performance seminar, recital. Instrumental or vocal ensemble.

Prerequisite: AAB500

Credit Points: 16 **Contact Hours:** 2 per week

■ **AAB502 CHIEF PRACTICAL STUDY 3**

Consolidation and extension of studies from AAB501l; performance seminar, participation in performance activities; open recitals.

Prerequisite: AAB501

Credit Points: 16 **Contact Hours:** 2 per week

■ **AAB503 ENSEMBLE STUDIES C1**

Group tuition on an orchestral instrument; basic performing technique. Directed ensemble activities including membership of instrumental or vocal ensemble, together with one other elective ensemble.

Credit Points: 12 **Contact Hours:** 6 per week

■ **AAB504 ENSEMBLE STUDIES C2**

Group tuition on an orchestral instrument; development of performing technique. Directed ensemble activities including membership of instrumental or vocal ensemble, together with one other elective ensemble.

Credit Points: 12 **Contact Hours:** 6 per week

■ **AAB505 ENSEMBLE STUDIES C3**

Group tuition on an orchestral instrument; further development of performing technique. Directed ensemble activities including membership of instrumental or vocal ensemble, together with one other elective ensemble.

Credit Points: 12 **Contact Hours:** 6 per week

■ **AAB506 AURAL MUSICIANSHIP 1**

Aural perception skills; development of vocal sight reading and performance skills; training the musical memory; solfege; dictation; aural analysis.

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

■ **AAB507 AURAL MUSICIANSHIP 2**

Continuation from work begun in AAB506; performance of music in parts; harmonic analysis; transcription of melodies by ear.

Prerequisite: AAB506

Credit Points: 8 **Contact Hours:** 2 per week

■ **AAB508 KEYBOARD MUSICIANSHIP**

Keyboard techniques; sight reading in a variety of keyboard styles; basic improvisation skills, including harmonisation of melodies, transposition.

Credit Points: 8 **Contact Hours:** 2 per week

■ **AAB509 TWENTIETH-CENTURY MUSIC 1**

Overview of major twentieth-century popular music styles including blues, jazz and rock music. Writing techniques, including original composition and performance.

Credit Points: 8 **Contact Hours:** 4 per week

■ **AAB510 TWENTIETH-CENTURY MUSIC 2**

Theatre and concert music to 1950. Literature and history: an examination of the major composers and selected major compositions from the first half of this century. Writing techniques corresponding to the styles studied in the literature segments; individual and group-generated compositions.

Prerequisite: AAB510

Credit Points: 8 **Contact Hours:** 5 per week

■ **AAB511 TWENTIETH-CENTURY MUSIC 3**

Theatre and concert music from 1950 to the present day. Electronic and computer music, aleatoric and minimalist techniques; the return to tonality.

Prerequisite: AAB510

Credit Points: 8 **Contact Hours:** 4 per week

■ **AAB512 MUSIC STUDIES 1**

Development of special skills and knowledge in one of the following: choral arranging and conducting, instrumental arranging and conducting, introduction to non-western music.

Credit Points: 8 **Contact Hours:** 2-4 per week

■ **AAB513 MUSIC STUDIES 2**

Development of special skills and knowledge in one of the following: choral arranging and conducting, instrumental arranging and conducting, introduction to non-western music, music in the theatre 1600-1900.

Credit Points: 8 **Contact Hours:** 2-4 per week

■ **AAB514 MUSIC STUDIES 3**

Development of special skills and knowledge in one of the following: choral arranging and conducting, instrumental arranging and conducting, popular music composition, introduction to principles and practices of teaching.

Credit Points: 8 **Contact Hours:** 2-4 per week

■ **AAB515 MUSIC STUDIES 4**

Development of special skills and knowledge in one of the following: choral arranging and conducting, instrumental arranging and conducting, popular music composition 2, music in the theatre 1600-1900, introduction to music research, independent study, studio music teaching.

Credit Points: 8 **Contact Hours:** 2-4 per week

AAB516 SYSTEMS OF PART WRITING 1
Writing of modal and tonal melodies; two-part techniques; functional harmony and voice leading techniques; diatonic harmony.
Prerequisite: Literacy in notation, key, rhythm. Knowledge of basic chord structures and progressions.
Credit Points: 12 **Contact Hours:** 2 per week

AAB517 SYSTEMS OF PART WRITING 2
Chromatic harmony; nineteenth and twentieth century writing techniques.
Prerequisite: AAB516
Credit Points: 12 **Contact Hours:** 2 per week

AAB518 LITERATURE & ANALYSIS OF MUSIC 1
Late Renaissance and Baroque music; development of research and analysis skills; special emphasis on Fugue, Binary and Ritornello forms as found in keyboard, instrumental and vocal music of the period.
Credit Points: 8 **Contact Hours:** 4 per week

AAB519 LITERATURE & ANALYSIS OF MUSIC 2
Music in the classical era; development of research and analytical skills; the classical sonata principle as found in the symphony, sonata, concerto and opera genres of the period.
Prerequisite: AAB518
Credit Points: 8 **Contact Hours:** 4 per week

AAB520 LITERATURE & ANALYSIS OF MUSIC 3
Romantic and impressionist music; development of research and analytical skills; forms studied include the Lied, symphony, orchestral music, instrumental and keyboard music, and music drama.
Prerequisite: AAB519
Credit Points: 8 **Contact Hours:** 4 per week

AAB551 POPULAR MUSIC COMPOSITION 1
Introduction to computer music, synthesiser, MIDI sequencing, music publishing and recording studio techniques.
Prerequisite: Consent of the lecturer.
Credit Points: 8 **Contact Hours:** 3 per week

AAB552 POPULAR MUSIC COMPOSITION 2
Principles and analysis of popular song structure, harmony and presentation. Aural analysis of popular repertoire and norms of the genre.
Prerequisite: AAB551
Credit Points: 8 **Contact Hours:** 3 per week

AAB553 POPULAR MUSIC COMPOSITION 3
Composition for film, television and the media using MIDI systems and computer/video time-code formats, including semiotic analysis of music for film.
Prerequisite: AAB552
Credit Points: 16 **Contact Hours:** 3 per week

AAB554 POPULAR MUSIC COMPOSITION 4
Continued use of MIDI systems in a personal composition project, focusing on multi-media presentational forms; time management and collaborative work; live performance project.
Prerequisite: AAB553
Credit Points: 12 **Contact Hours:** 3 per week

AAB555 IMPROVISATION
Aural analysis of harmonic progressions; acquisition of a repertoire of jazz/pop standards for improvisation purposes; improvisation on chief instrument and in the ensemble situation.
Prerequisite: AAB506
Credit Points: 12 **Contact Hours:** 3 per week

AAB556 POPULAR MUSIC: SOCIOLOGY, ATTITUDES, APPLICATIONS
Understanding popular culture; relationship between popular culture and art forms; roles of the media; critical study of popular music genres.
Prerequisite: AAB051
Credit Points: 8 **Contact Hours:** 2 per week

AAB557 ENSEMBLE STUDIES P1
Group tuition on an orchestral instrument; basic performing technique. Directed ensemble activities including membership of pop ensemble, together with one other elective ensemble. Keyboard musicianship as appropriate to the popular music genre.
Credit Points: 16 **Contact Hours:** 7 per week

AAB558 ENSEMBLE STUDIES P2
Group tuition on an orchestral instrument; development of performing technique. Directed ensemble activities including membership of pop ensemble, together with one other elective ensemble. Aural musicianship as appropriate to the popular music genre.
Credit Points: 16 **Contact Hours:** 7 per week

AAB701 THE MAKING OF MODERNISM
The birth of modern art from French Impressionism to the eve of the World War 2; the major movements and their theoretical underpinnings.
Credit Points: 12 **Contact Hours:** 4 per week

AAB702 FOUNDATION MEDIA STUDIES 1
Familiarisation with resources available within and outside the University: exhibition spaces, working environments, institutions, the materials and tools of art-making facilities, printed and visual resources; individual and group projects introducing a variety of visual art problems.
Credit Points: 24 **Contact Hours:** 18 per week

AAB703 FOUNDATION MEDIA STUDIES 2
Development of a visual dialogue through a series of projects within and outside the studio with a view to understanding relationships between the theoretical and practical aspects of art and developing a philosophical basis for professional attitudes and original thinking; research into the knowledge and resources available; development of the ability to evaluate aesthetic qualities in the student's own work.
Prerequisite: AAB702
Credit Points: 36 **Contact Hours:** 18 per week

AAB704 ART SINCE 1945
Major developments in the visual arts since 1945 with a particular examination of post-modernism; the role of the artist in contemporary society; the role of the media/art critic in shaping contemporary art practice.
Prerequisite: AAB701
Credit Points: 12 **Contact Hours:** 3 per week

AAB705 PRACTICUM 1
Four weeks work experience in visual arts related locations such as public and commercial galleries, conservation, State Library, Queensland Museum.
Credit Points: 12

AAB706 PRACTICUM 2
Shared responsibility by graduating students for all aspects of their graduation exhibition.
Credit Points: 12

AAB707 ADVANCED MEDIA STUDIES 1
Students are expected to research their own personal directions, formulate and develop self-generated enquiry and demonstrate the acquisition of working methods, skills and knowledge required for the successful realisation of their concepts. Students present a program to the Course Coordinator which indicate specific studies in the 2 dimensional or 3 dimensional areas or a combination of these.
Prerequisite: AAB703
Credit Points: 24 **Contact Hours:** 18 per week

AAB708 ADVANCED MEDIA STUDIES 2
Students prepare and present a plan of studies based on their own specific interest; rigorous questioning of concept and artefact is required with the level of realisation and the ways in which media are used reflecting a high level of achievement. Further workshops in areas where the acquisition of skills is essential.
Prerequisite: AAB707
Credit Points: 24 **Contact Hours:** 12 per week

AAB709 ADVANCED MEDIA STUDIES 3
Students are expected to work independently demonstrating sound habits of research and sustained studio practice; skills developed in AAB703 and AAB707 should enable concepts to be expressed with confidence; intensive studio work to draw together the students' interest in the visual arts in general and their specific study in particular.
Prerequisite: AAB708
Credit Points: 24 **Contact Hours:** 18 per week

AAB710 ADVANCED MEDIA STUDIES 4
Independent work in preparation for an exhibition.
Prerequisite: AAB709
Credit Points: 24 **Contact Hours:** 12 per week

AAB711 AUSTRALIAN ART
Development of Australian art since its human settlement 40,000 years ago; the visual arts since European settlement, contemporary Western and Aboriginal art.
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 are heightened.
Credit Points: 12 **Contact Hours:** 3 per week

AAB713 RESEARCH METHODS SEMINAR
Training in the research and writing of a theoretical/historical dissertation. Compulsory elective for students intending to undertake Honours studies.
Credit Points: 24

AAB714 PROFESSIONAL STUDIES
Studio workshop management; business principles; legal principles; promotion and marketing.
Credit Points: 12 **Contact Hours:** 4 per week

AAB720 EXTENDED MEDIA STUDY 2
Extension of studio work in conjunction with AAB708.
Credit Points: 12 **Contact Hours:** 3 per week

AAB721 EXTENDED MEDIA STUDY 4
Extension of studio work in conjunction with AAB709.
Credit Points: 12 **Contact Hours:** 3 per week

AAB722 EXTENDED MEDIA STUDY 6
Extension of studio work in conjunction with AAB710.
Credit Points: 12 **Contact Hours:** 3 per week

AAB724 RENAISSANCE STUDIES
An investigation of aspects of western European art between 1300 and 1600. Topics include the historiography of the Renaissance, art and humanism, the development of perspective, iconography, patronage, portraiture, the status of the artist. These topics are considered through a study of painting, sculpture, architecture and appropriate literary sources.
Credit Points: 12 **Contact Hours:** 3 per week

AAB725 INTRODUCTION TO SOUTH-EAST ASIAN ART
Emphasises the influence of Buddhist and Hindu religions in the making of art in South-east Asia and by extension India, China and Japan. The influence of Islam in Indonesian art compared with that of the indigenous religions.
Credit Points: 12 **Contact Hours:** 3 per week

AAB901 ART EDUCATION
The nature of art within schools and society for the generation of principles for identifying, selecting and organising components into art programs which effectively develop responses within children at suitable stages of their development. Ranges of teaching strategies, art program models and resources related to the neophyte teachers' practical needs of structuring and sequencing learner experiences.
Credit Points: 8 **Contact Hours:** 3 per week

AAB902 VISUAL ARTS 1
These studies are structured to develop students' expressive and critical abilities through the exploration of visual problems within the parameters of available media. Based on the two broad clusters of 2 dimensional and 3 dimensional media, students resolve some predetermined visual problems through conventional and/or divergent responses. These responses are in terms of employing traditional and contemporary media.
Credit Points: 8 **Contact Hours:** 3 per week

AAB903 VISUAL ARTS 2
Greater familiarisation with selected media allows students to initiate, enhance and develop their own visual appreciation and responses. A key feature of this subject is the development of imagery suitable to the media selected. Detailed investigation of material processes, historical responses and contemporary approaches to visual stimuli and problems is undertaken.
Prerequisite: AAB902
Credit Points: 12 **Contact Hours:** 3 per week

AAB904 VISUAL ARTS 3
Develops the students' detailed understanding and technical competencies of their selected media through a combination of structured and student initiated programs. The fields of critical analysis and personal imagemaking are fostered and enhanced. Contemporary trends and issues in the selected media are a major feature of this subject.
Prerequisite: AAB903
Credit Points: 12 **Contact Hours:** 3 per week

AAB905 DRAMA EDUCATION
Through workshop and practical fieldwork students acquire a basic knowledge of the functions, scope and sequence of children's dramatic play. The growth of pro-social ability through role-taking in naturalistic social settings from ages 1-15 is observed and analysed. This background is contextualised through a practical exploration of a range of appropriate approaches to drama in the classroom.
Credit Points: 8 **Contact Hours:** 3 per week

AAB906 MUSIC EDUCATION 1
Awareness of the stages of music growth through a sequenced methodology including solfa and classroom choral studies with classroom instrument accompaniment. Modern approaches to teaching of recorder in the classroom. Elements of rhythm, melody, form, harmony, style and expression form the basis of the approach.
Credit Points: 8 **Contact Hours:** 3 per week

AAB907 MUSIC EDUCATION 2
The study of the music curriculum at a more advanced level. Familiarity with the philosophy, objectives, content strategies and evaluation techniques of selected programs gives students a broad base on which they can design their own music programs. Creativity and practical skills develop through issues raised in studies of selected programs.
Prerequisite: AAB906
Credit Points: 8 **Contact Hours:** 3 per week

AAB909 PERFORMING ARTS 2
Having established a basic understanding of the elements common to all drama, students explore those specific to the dramatic-playing mode. Skills in the planning and leading of those dramatic genres based around improvisatory approaches are acquired as students conduct a series of improvisation for their peers. Particular skills in the shaping of drama include those of leader-in-role, participant enrolment, negotiation, distancing devices and means of reflection.
Prerequisite: AAB908
Credit Points: 12 **Contact Hours:** 3 per week

AAB910 PERFORMING ARTS 3
The performance of a major choral work; analysis interpretation, style, techniques of conducting and rehearsing. Students select an historical topic for research and develop further techniques on composition or solo/ensemble performance.
Prerequisite: AAB909
Credit Points: 12 **Contact Hours:** 3 per week

AAB921 UNDERSTANDING ART
Practical and theoretical studies in the history and meaning of art and design, using drawing and design exercises as a personal means of coming to terms with the complexities of modern art.
Credit Points: 4 **Contact Hours:** 2 per week

AAB922 PAINTING & DRAWING
Pictorial exercises based on colour and form, involving extensive studio work, history or drawing, gallery visits and analytical criticism of drawings, experimental graphic processes.
Credit Points: 4 **Contact Hours:** 2 per week

AAB923 PRINTMAKING 1
Exploration of a wide range of printmaking devises: relief – preparation of a surface by addition (collage), and by subtraction (linoleum); intaglio – acetate, engraving, paper drypoint.
Credit Points: 4 **Contact Hours:** 2 per week

AAB924 SCULPTURE
Development of conceptual expression through 3 dimensional materials: clay, metal, leather and wood.
Credit Points: 4 **Contact Hours:** 2 per week

AAB925 THEATRE GAMES
Study of a wide variety of theatre and drama games for their intrinsic interest and to demonstrate the ways in which a leader may choose and run games with a group; fame theory; game leadership style; group dynamics; game sequencing.
Credit Points: 8 **Contact Hours:** 2 per week

AAB926 COMMUNICATION THROUGH DRAMA
Voice and speech development; creative and developmental drama; interpretation of literature; group discussion techniques; oral skills of the classroom.
Credit Points: 8 **Contact Hours:** 2 per week

AAB927 CHILDREN'S THEATRE
Analysis of children's theatre, its techniques, aims and values; preparation and presentation of a production for children; organisation of a school's tour.
Credit Points: 8 **Contact Hours:** 2 per week

AAB929 DANCE CONDITIONING & FITNESS
Appreciating the body as a functional instrument and tool for expression through physical skills; understanding and using movement concepts in a variety of contexts; demonstrating spatial and rhythmic awareness; application of anatomical knowledge.
Credit Points: 4 **Contact Hours:** 2 per week

AAB931 NATIONAL & FOLK DANCE
Development of steps and styles of selected national and folk dances; understanding of cultural background of selected populations; investigation of costumes appropriate to selected population; demonstration of selected national and folk dances.
Credit Points: 8 **Contact Hours:** 2 per week

AAB932 PRACTICAL STUDIES B1 (EC)
Group tuition on a wind or brass instrument; basic performing techniques; ensemble experience (i.e., wind ensemble or stage band). Continues into second semester.
Credit Points: 4 **Contact Hours:** 3 per week

AAB933 PRACTICAL STUDIES B2 (EC)
Continuation from AAB932.
Credit Points: 4 **Contact Hours:** 3 per week

AAB935 GUITAR FOR BEGINNERS
Development of skill in playing basic guitar chords, strumming suitable rhythmic patterns and leading of group singing with guitar. Available only to beginners or those with little recent experience on guitar.
Credit Points: 4 **Contact Hours:** 1 per week

AAB936 PIANO FOR BEGINNERS
Introduction to the piano as a practical instrument for use in both recreational and classroom situations; sight reading; harmonisation. Available only to those with no previous experience on piano.
Credit Points: 4 **Contact Hours:** 1 per week

AAB937 CREATIVE MUSIC WORKSHOP
Musical improvisation and composition; exploration of sound; discrimination and organisation of sound; musical communication; integration with other artistic forms; media and technology; workshop performance; style and technique.
Credit Points: 4 **Contact Hours:** 2 per week

AAB938 EXPLORING MUSIC

Use of recorder, percussion instruments, voice, autoharp, movement and speech to develop a familiarity with music; building a vocabulary for understanding the language of music and movement.
Credit Points: 8 **Contact Hours:** 2 per week

AAN001 ARTS RESEARCH METHODS 1

The role and processes of research in the arts; defining the research tradition; qualitative research; emerging arts research processes; reporting of research findings.
Credit Points: 12 **Contact Hours:** 3 per week

AAN003 AESTHETIC CODES IN CONTEMPORARY SOCIETY

An investigation of theories of art within the discipline of aesthetics. Five key questions are addressed, against a background of contemporary western society.
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.
Credit Points: 12 **Contact Hours:** 3 per week

AAN200 DRAMATURGY

Students investigate the roles of dramaturgy in western theatre. Major practical exercise as production dramaturg on a current production.
Credit Points: 12 **Contact Hours:** 3 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.
Credit Points: 12 **Contact Hours:** 3 per week

AAN202 TEXTUAL ANALYSIS

Students extend the analytical framework undertaken in AAN502 in the application to dramatic texts. This includes consideration of interaction of various codes within a dramatic text, historical and cultural factors, additional codes operating in a film version of a play text, and the semiotic codes operating in dramatic performance.
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.
Credit Points: 12 **Contact Hours:** 3 per week

AAP420 THE ARTS CURRICULUM & TEACHING STUDIES A

A comprehensive philosophical and practical base enabling students to construct worthwhile learning experiences through, for and about the arts. There is specific reference to dance education, drama education, music education (primary and secondary) and visual arts education. The subject has two emphases. The first addresses the how and why looking at the inter-disciplinary capacity of these skills and understandings. The second addresses the what. Both are geared to the provision of productive and critical skills assisting students' orientation and integration into the teaching profession.
Prerequisite: Appropriate discipline studies in the undergraduate degree.
Co-requisite: EDP450
Credit Points: 24 **Contact Hours:** 6 per week

AAP421 DANCE CURRICULUM & TEACHING STUDIES B

Provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies and examines the roles of the teacher in the community and the profession.
Prerequisite: AAP420 **Co-requisite:** EDP451
Credit Points: 12 **Contact Hours:** 3 per week

AAP422 DRAMA CURRICULUM & TEACHING STUDIES B

Provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies and examines the roles of the teacher in the community and the profession.
Prerequisite: AAP420 **Co-requisite:** EDP451
Credit Points: 12 **Contact Hours:** 3 per week

AAP423 MUSIC CURRICULUM & TEACHING STUDIES B

Provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies and examines the roles of the teacher in the community and the profession.
Prerequisite: AAP420 **Co-requisite:** EDP451
Credit Points: 12 **Contact Hours:** 3 per week

AAP424 VISUAL ARTS CURRICULUM & TEACHING STUDIES B

Provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies and examines the roles of the teacher in the community and the profession.
Prerequisite: AAP420 **Co-requisite:** EDP451
Credit Points: 12 **Contact Hours:** 3 per week

AAP425 DRAMA CURRICULUM & TEACHING STUDIES C

This Curriculum B subject provides opportunities for students to critically examine and develop skills and understandings in significant areas of teaching and learning in drama. It provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies and examines the roles of the teacher in the community and the profession.
Co-requisite: EDP451
Credit Points: 12 **Contact Hours:** 3 per week

AAP426 MUSIC CURRICULUM & TEACHING STUDIES C

This Curriculum B subject provides opportunities for students to critically examine and develop skills and understandings in significant areas of teaching and learning in music. It provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies and examines the roles of the teacher in the community and the profession.
Co-requisite: EDP451
Credit Points: 12 **Contact Hours:** 3 per week

AAP427 VISUAL ARTS CURRICULUM & TEACHING STUDIES C

This Curriculum B subject provides opportunities for students to critically examine and develop skills and understandings in significant areas of teaching and learning in visual arts. It provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies and examines the roles of the teacher in the community and the profession.

Co-requisite: EDP451

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

AAP501 ART CURRICULUM FOUNDATIONS

Overview and understanding of aims, content and agenda of historical and contemporary art education orientations; assumptions hy movements in relation to art theories, child development, teachers' 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.

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; examination of the learning outcomes of art activities; classroom practice and evaluation across all levels of schooling.

Prerequisite: AAP501

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

AAP503 CLAY MATERIALS 1

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.

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

AAP504 CLAY MATERIALS 2

Detailed specialisation in individually selected styles; emphasis on conceptual matters and imagery; expansion of ceramic knowledge and technical formats; investigation of contemporary trends, influences and issues in Australian ceramics.

Prerequisite: AAP505

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

AAP505 FIBRE ARTS 1

Investigation of both 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.

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

AAP506 FIBRE ARTS 2

Continuation of AAP505. Nature of fibres; fibre construction; printing techniques suitable for fibre arts; embellishing fibre surfaces.

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

AAP507 PAINTING & DRAWING 1

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

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

AAP508 PAINTING & DRAWING 2

Further development of traditional and experimental imagery through studio workshops, discussions and professional practice.

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

AAP509 PHOTOGRAPHIC MEDIA 1

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

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

AAP510 PHOTOGRAPHIC MEDIA 2

Continuation of AAP509. Photographic techniques; innovative approaches to photography; history of photography; personal approaches to photography.

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

AAP511 PRINTMAKING 1

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 with cut, draw and photographic stencils; presentation of prints.

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

AAP512 PRINTMAKING 2

Continuation of AAP511. Motivational sources; creation and external applications of techniques and media related to printmaking; exploration of related art areas.

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

AAP513 APPLIED STUDY IN ART EDUCATION

Supervised individual academic investigation of existing or innovative facets of art; art education or education displaying professional endeavour and/or reflection.

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

AAP514 CURRICULUM EVALUATION: ARTS EDUCATION

Awareness of historical perspective of curriculum evaluation; critically analyse dilemmas in contemporary modes of curriculum evaluation; evaluate an existing curriculum project.

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

AAP530 CURRICULUM ANALYSIS & MODIFICATION

Detailed study of six programs; teacher-devised programs; critical analysis; basic elements of curriculum design; design of programs in music for information and evaluation.

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

AAP531 ISSUES IN MUSIC EDUCATION

Developments in arts education in Queensland within P-10 framework; role of arts/music education; the process of learning that is critical in nature; contributions made by history, sociology, psychology and philosophy to arts education.

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

AAP532 STUDIES IN CURRICULUM

Study of movement, voice and classroom instruments and associated literature; writing and arranging music for classroom use; developing teaching strategies for

voice, movement and instrumental music, rehearsal and conducting techniques.
Credit Points: 12 **Contact Hours:** 3 per week

AAP533 BAROQUE & THE ROCOCO
Written and aural activities to improve musicianship; studies of Baroque and Rococo music literature, analysis, form, continuo; performance practice.
Credit Points: 12 **Contact Hours:** 3 per week

AAP534 CLASSICAL & ROMANTIC MUSIC
Interpret and perform work from Viennese/Romantic eras; understand musical forms and theory of these eras; compose short works.
Credit Points: 12 **Contact Hours:** 3 per week

AAP535 TWENTIETH CENTURY MUSIC
Use twentieth century rhythms through dictation, composition, improvisation and performance; explore overtone series; understand tone clusters; sound mass and aleatoric procedures; perform material from the twentieth century.
Credit Points: 12 **Contact Hours:** 3 per week

AAX101 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.
Credit Points: 8 **Contact Hours:** 2 per week

AAX102 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.
Prerequisite: AAX101
Credit Points: 8 **Contact Hours:** 2 per week

AAX103 MUSIC 1
Introduction to musical basics through aural and written theories.
Credit Points: 8 **Contact Hours:** 1.5 per week

AAX104 DANCE KINESIOLOGY & ALIGNMENT
Principles which govern human stability and motion; ways in which muscles work to produce dance movement; machines of the body; movement and dance injuries.
Credit Points: 12 **Contact Hours:** 3.5 per week

AAX105 DANCE STYLES 1
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.
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.
Prerequisite: AAX105
Credit Points: 8 **Contact Hours:** 3 per week

AAX107 DANCE TECHNIQUES 1
A study of ballet and contemporary dance techniques. Principles of classic techniques; practical work includes barre work, adagio, pirouettes, allegro, pointe work and pas de deux. Practical work includes floor work, centre work and basic combinations; combinations to develop flexibility, strength and coordination; vocabulary of contemporary dance techniques; off-balance technique.
Credit Points: 16 **Contact Hours:** 15 per week

AAX108 DANCE TECHNIQUES 2
Further study of ballet and contemporary dance techniques.
Prerequisite: AAX107
Credit Points: 16 **Contact Hours:** 15 per week

AAX109 DANCE TECHNIQUES 3
Continuation of classical and contemporary dance techniques.
Prerequisite: AAX108
Credit Points: 16 **Contact Hours:** 15 per week

AAX110 DANCE TECHNIQUES 4
Consolidation of classical and contemporary dance techniques.
Prerequisite: AAX109
Credit Points: 16 **Contact Hours:** 15 per week

AAX111 REPERTOIRE & PRACTICE PERIOD 1
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.
Credit Points: 12

AAX112 REPERTOIRE & PRACTICE PERIOD 2
Continuation of studies initiated in AAX111.
Prerequisite: AAX111
Credit Points: 16

AAX113 REPERTOIRE & PRACTICE PERIOD 3
Continuation of AAX112.
Prerequisite: AAX112
Credit Points: 16

AAX114 REPERTOIRE & PRACTICE PERIOD 4
Continuation of AAX113; preparation for the dance industry; preparation of curriculum vitae and funding applications.
Prerequisite: AAX113
Credit Points: 16

AAX115 DANCE HISTORY
Early development of dance technique; social and religious functions of dance; development of dance throughout the Renaissance period; the European and Russian contribution to classical ballet; the rise of modern dance in Europe and America; the development of dance in Australia.
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.
Credit Points: 8 **Contact Hours:** 2 per week

ALB100 ADMINISTRATIVE LAW

Principles of administrative law; discretionary powers of governments and their instrumentalities and the corresponding rights and obligations of business entities, viz dealing with the Australian Taxation Office or the Australian Securities Commission, freedom of information, administrative tribunals and remedies.
Prerequisite: ALB110 or ALB108
Credit Points: 12 **Contact Hours:** 3 per week

ALB101 COMMERCIAL LAW

Commercial law: agency, bailment guarantees, cheques and other negotiable intruments, insurance and banking; aspects of partnerships and company law.
Prerequisite: ALB107
Credit Points: 12 **Contact Hours:** 3 per week

ALB103 FINANCIAL INSTITUTIONS LAW

The general processes of the legal system; legal structures of financial institutions, bank-customer relationship; Cheque Act, Credit Act, negligent advice.
Prerequisite: ALB110
Credit Points: 12 **Contact Hours:** 3 per week

ALB104 INDUSTRIAL LAW

The system of industrial law in Australia; the development and role of law in industrial relations; industrial relations legislation; common law; contract of employment and industrial torts.
Prerequisite: HRB131
Credit Points: 12 **Contact Hours:** 3 per week

ALB105 INTERNATIONAL BUSINESS LAW

Examination of the law governing the establishment and conduct of international business; business structures, international contracts, competing legal jurisdictions, international codes of conduct and an introduction to the taxation consequences of international business.
Prerequisite: ALB110
Credit Points: 12 **Contact Hours:** 3 per week

ALB107 LEGAL ENVIRONMENT OF BUSINESS

The major statutes of law affecting an individual's legal responsibilities that are acquired when a person attains the age of 18; current legislation affecting family relationships; the renting and/or buying of a house; relationships between employer and employee.
Credit Points: 12 **Contact Hours:** 3 per week

ALB110 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.
Credit Points: 12 **Contact Hours:** 3 per week

ALB111 COMMERCIAL & SECURITIES LAW

Specific types of contract: sales of goods, credit contracts, agency, bailment and insurance; aspects of the Trade Practices Act and negotiable instruments.
Prerequisite: ALB110
Credit Points: 12 **Contact Hours:** 3 per week

ALB120 COMPANY LAW & PRACTICE

The practical implementation of the accounting, auditing, meeting and managerial requirements of the Corporations Law; the outworking of the law relating to insolvent and financially troubled companies; company take-overs and share buy-backs and the protection of minority interests.
Prerequisite: ALB122
Credit Points: 12 **Contact Hours:** 3 per week

ALB121 INSOLVENCY LAW & PRACTICE

Nature and effects of 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.
Prerequisite: AYN112, AYB111, ALB122
Credit Points: 12 **Contact Hours:** 3 per week

ALB122 LAW OF BUSINESS ASSOCIATIONS

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, in particular, share capital prospectuses, directors' duties, incorporation and registration requirements.
Prerequisite: ALB110
Credit Points: 12 **Contact Hours:** 3 per week

ALB131 TAX PLANNING

General 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.
Prerequisite: ALB133
Credit Points: 12 **Contact Hours:** 3 per week

ALB132 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.
Prerequisite: ALB133
Credit Points: 12 **Contact Hours:** 3 per week

ALB133 TAXATION OF BUSINESS ENTITIES

Partnerships, trusts, superannuation funds and companies; concessional treatment afforded specific classes of taxpayer; international taxation: introduction, administration and avoidance provisions; introduction to business taxes which are not applied to income.
Prerequisite: ALB132
Credit Points: 12 **Contact Hours:** 3 per week

ALN101 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. Consideration is also given to the professional responsibilities of tax advisers.
Credit Points: 12 **Contact Hours:** 3 per week

ALN102 ADVANCED TAXATION

A conceptual analysis of the Australian income tax system to give perspective and meaning to technical law. Some specific and complex practical problems raised by the Income Tax Assessment Act and related legislation are analysed in depth.
Credit Points: 12 **Contact Hours:** 3 per week

ALN103 BUSINESS LAW & ETHICS

Introduction to business law and to morality in the business context. Interpretation of statutes, law of torts, contract law, industrial law and the utility of business structures; morality in the business community; how morality 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.

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

ALN104 COMMERCIAL LAW HONOURS

Examination of the law, policy and practice of financial disclosure. The objectives are to give students the opportunity to obtain a detailed understanding of the rules governing the preparation and audit of financial information whether for annual accounts, experts' reports, or for use in prospectuses or take-overs. It 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.

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

ALN105 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 training guarantee levy.

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

ALN106 INTERNATIONAL TAXATION

Application of principles of Australian income tax law and practice to situations and transactions with an international element; measures to combat international tax avoidance.

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

ALN107 LIQUIDATIONS & RECEIVERSHIP

Examination of the law and practice of corporate insolvency; comparisons between 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; and actions against company officers.

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

ALN109 SPECIAL TOPIC – COMMERCIAL LAW

Examination of issues of great contemporary significance in the business law, company law and taxation areas. In particular, issues of management law, disclosure of information and the new conceptual framework for accounting and professional liability are likely to be the preferred topics in 1992.

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

ALN110 TAXATION POLICY HONOURS

The Australian taxation system as it has evolved under the policy-making powers of the Australian Government. Generally accepted principles governing the formation of taxation policy are analysed and then reviewed in the light of the various tax reform initiatives adopted by the Government as a result of the recommendations of committees of enquiry into the taxation system over the past two decades.

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

ALN300 INSOLVENCY & RECONSTRUCTION (PY)

Examination of the law and practice of corporate insolvency; comparisons between 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.

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

ALN301 TAXATION 1 (PY)

This subject 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.

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

ALN302 TAXATION 2 (PY)

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

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

ALP101 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.

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

ALP102 INDUSTRIAL LAW

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

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

ALX100 AUSTRALIAN EMPLOYMENT LAW

Australian legal systems; the Constitution and Federal powers; State legal institutions; the contract of employment; hiring practices and the law; law relating to dismissal and discipline; workers' compensation and occupational health and safety laws.

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

ALX101 AUSTRALIAN INDUSTRIAL LAW

Conciliation and arbitration laws; the Federal laws on dispute resolution, the Labor Court, special tribunals, State systems; functioning and regulation of industrial organisations and trade unions; laws relating to strikes and industrial disputes.

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

ALX102 THE LEGAL PROCESS

Law making process; judicial process; content of criminal, industrial and commercial law in the Australian Commonwealth and States; the Constitution and Federal laws; operation of courts.

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

ARB140 INTRODUCTORY DESIGN 1

Mechanical drawing techniques; topics covered include: contour, texture and tone; depth perception, optical illusions and the principles of perspective; techniques of perspective drawing; the organisation of the visual field and the gestalt 'laws of pragnanz'; pattern in two and three dimensions; visual interest and attention; visual dynamics; and principles of scale drawing.

Credit Points: 16 **Contact Hours:** 8 per week

ARB141 THE HUMAN ENVIRONMENT 1

Basic understanding of 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; introduction to ergonomics; applications of anthropometrics and ergonomics to design.

Credit Points: 4 **Contact Hours:** 2 per week

ARB151 INTRODUCTION TO TECHNOLOGY

Basic knowledge on applied technologies and how they relate to industrial products and systems. The lecture topics include: social and technological change in an historical context; the industrial society and the role of the designer; new technologies and social change; appropriate technologies and their implication design.

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

ARB161 LIGHT & COLOUR STUDIES

Colour vision, colour harmony and contrast, mixing and the application of colour, examination of a range of contemporary theories relating to the use of colour in design; and introduction to the study of the qualitative effects of lighting on form and colour in interiors. The physiological-psychological basis for colour relations and the range of techniques used to apply these theories in the design professions.

Co-requisite: ARB140

Credit Points: 8 **Contact Hours:** 2 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.

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: 2 dimensional and 3 dimensional objects; personal working and living space.

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

ARB194 DESIGN 2

See ARB193.

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

ARB195 TECHNOLOGY 1

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

Credit Points: 4 **Contact Hours:** 2 per week

ARB196 TECHNOLOGY 2

See ARB195.

Credit Points: 4 **Contact Hours:** 2 per week

ARB197 HISTORY OF THE BUILT ENVIRONMENT 1

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

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

ARB198 HISTORY OF THE BUILT ENVIRONMENT 2

See ARB197.

Credit Points: 2 **Contact Hours:** 1 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 design, industrial design.

Credit Points: 10 **Contact Hours:** 5 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 cover application of lecture topics to product design.

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

ARB261 INTRODUCTION TO INTERIOR TECHNOLOGY

Introduction to the elements of construction systems and construction materials; the development of skills in measuring, surveying and recording information on existing spaces in buildings. Lectures deal with basic structural systems and building carcase. Instruction is given in techniques of measuring and recording existing structures.

Co-requisite: PLB200

Credit Points: 8 **Contact Hours:** 3 per week

ARB288 DESIGN SCIENCE 2

Basic design for hot humid climates, principles governing air flow through and around buildings and space. Natural ventilation, introduction to 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.

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 principles in the conceptual stages of design, laboratory tests and computer evaluations of design 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.

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.

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 sociocultural function.

Credit Points: 4 **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.

Credit Points: 4 **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. Planing 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; 3 dimensional presentation and modelling.

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

ARB294 DESIGN 4

See ARB293.

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.

Credit Points: 4 **Contact Hours:** 2 per week

ARB296 BUILDING CONSTRUCTION 2

See ARB295.

Credit Points: 4 **Contact Hours:** 2 per week

ARB297 PRINCIPLES OF STRUCTURES 1

Basic principles of structures as applicable to elements of architecture, industrial design, interior design and landscape architecture. Terminology, forces and reactions; loading on structures, equilibrium and stability; co-planar and non-coplanar forces; resolution of forces; mechanics of structural components under load, compression, tension, bending, shear, deflection. Connections.

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

ARB298 PRINCIPLES OF STRUCTURES 2

Principles and application of building structures in timber and masonry. Loading in buildings; foundations and footings; timber structures as floors, walls and roofs, framing and cladding, fastening and connections; structural stability. Masonry construction: brickwork and blockwork, load bearing construction; continuity; stiffening; opening. Codes.

Credit Points: 4 **Contact Hours:** 2 per week

ARB299 INTRODUCTION TO COMPUTING 1

The computer as a tool; introduction to micro-computer 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.

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; to inculcate concerns for safety, comfort, construction, content form and order.

Prerequisite: PLB200

Credit Points: 18 **Contact Hours:** 8 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 will be complemented by site visits and workshop practice.

Credit Points: 16 **Contact Hours:** 6 per week

ARB342 DESIGN SCIENCE 1

The principles governing quantity and quality of light and daylight in buildings. Manual and computerised calculation of daylight factors. Testing of model interiors in artificial sky. Solar variation, solar loads, solar paths and solar charts. Design for sunlight and shade. Manual and computerised projection of solar shadows and reflections. Testing of models on heliodon.

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

ARB343 VISUAL COMMUNICATION FOR ARCHITECTS 1

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

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. 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 according to the semester level.

Prerequisite: PLB200

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.
Prerequisite: ARB251
Credit Points: 4 **Contact Hours:** 2 per week

ARB352 VISUAL COMMUNICATION FOR INDUSTRIAL DESIGNERS 1

The development of visual communication techniques; introduction to rendering techniques and the use of different visual communication media.
Credit Points: 4 **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 will be the subject of studio exercises.
Credit Points: 12 **Contact Hours:** 6 per week

ARB354 CAD FOR INDUSTRIAL DESIGNERS 1

PC computer operation, DOS, file and disk management. Introduction to the use of graphics and CAD by industrial designers. Applications in design, presentation graphics and engineering drawings, and introduction to 3D CAD.
Credit Points: 4 **Contact Hours:** 2 per week

ARB360 INTERIOR DESIGN 1

Introduction to a systematic design process related to interior design problems. Lectures cover problem-solving theory and studio exercises include a range of interior design problems.
Prerequisite: PLB200 **Co-requisite:** ARB361
Credit Points: 18 **Contact Hours:** 8 per week

ARB361 INTERIOR TECHNOLOGY I

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; discusses issues such as the evolution of building materials and the evaluation of material performance and suitability.
Prerequisite: ARB261 **Co-requisite:** ARB360
Credit Points: 16 **Contact Hours:** 6 per week

ARB362 FURNITURE & FITTINGS 1

Introduction to fabrics and textiles in interior design; wall to wall carpeting; curtains and blinds; upholstering; in each case materials, properties and techniques are discussed; the role of fabrics and textiles in interior design.
Credit Points: 4 **Contact Hours:** 2 per week

ARB363 VISUAL COMMUNICATION FOR INTERIOR DESIGNERS 1

Visual thinking and drawing and basic rendering skills, the production of rough mock-ups and scale model making.
Prerequisite: PLB200
Credit Points: 4 **Contact Hours:** 2 per week

ARB386 LAW OF THE BUILT ENVIRONMENT

Laws, regulations and their interpretation; a review of the Australian and Queensland Acts, local authority 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.
Credit Points: 4 **Contact Hours:** 2 per week

ARB387 ENVIRONMENTAL IMPACT STUDIES

Ecological impacts of built environment developments such as roads, railways, power lines, buildings; impact of processes of developments upon natural resources, vegetation, soils, hydrology, air purity, etc.; secondary effects of development such as fire, feral animals, weeds, added nutrients, tramping, etc.; rehabilitation of disturbed ecosystems, maintaining urban habitats and wildlife.
Credit Points: 2 **Contact Hours:** 1 per week

ARB388 DESIGN SCIENCE 4

Principles governing 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.
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.
Credit Points: 4 **Contact Hours:** 2 per week

ARB391 BUILDING SERVICES 1

Hydraulics: water supply; gas; plumbing; drainage and sewage as applicable to domestic and low-rise buildings. Fire services; sprinklers; alarms; extinguishers; emergency systems.
Credit Points: 4 **Contact Hours:** 1.5 per week

ARB392 BUILDING SERVICES 2

Electricity: supply and transmission systems; sub-stations; 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.
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.
Credit Points: 8 **Contact Hours:** 4 per week

ARB394 DESIGN 6

See ARB393.
Credit Points: 8 **Contact Hnurs:** 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.
Credit Points: 3 **Contact Hours:** 1.5 per week

ARB396 BUILDING CONSTRUCTION 4
See ARB395.
Credit Points: 3 **Contact Hours:** 1.5 per week

ARB397 PRINCIPLES OF STRUCTURES 3
The principles and their application to building structures in steel; structural properties of mild steel and high tensile steel; structural framing and connections; structural systems in steel: beams and columns, portal frames, space frames, trusses, tensile structures, approximate sizing.
Credit Points: 3 **Contact Hours:** 1.5 per week

ARB398 PRINCIPLES OF STRUCTURES 4
The principles and their application to building structures in reinforced concrete; structural behaviour of reinforced concrete; basic theory of reinforced concrete beams and columns; structural systems in reinforced concrete; post-and-beam, one and two-way slab, T and L-beam, waffle slab, flat slab, flat plate; columns; frames; framing, walling and roofing in reinforced concrete; approximate sizing.
Credit Points: 4 **Contact Hours:** 2 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.
Prerequisite: ARB340
Credit Points: 20 **Contact Hours:** 6 per week

ARB441 BUILDING CONSTRUCTION 2
This subject will be conducted by the case study method, 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 will be complemented by field studies and workshop practice.
Prerequisite: ARB341
Credit Points: 10 **Contact Hours:** 5 per week

ARB442 DESIGN SCIENCE 2
Basic design for hot humid climates. Principles governing air flow around buildings. Natural ventilation. Airflow in cities. Testing of airflow through and around models. Basic design for hot arid climates and for cold climates. Macro and micro climatic conditions. Manual and computerised climatic evaluation.
Prerequisite: ARB342
Credit Points: 2 **Contact Hours:** 1 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 are studied.
Credit Points: 4 **Contact Hours:** 2 per week

ARB444 ENVIRONMENTAL STUDIES – ENVIRONMENTAL IMPACTS
The impacts of development; environmental impacts related to land uses, land and building development, production and use of consumer products, construction materials and processes; environmental criteria for future land and product development.
Credit Points: 2 **Contact Hours:** 1 per week

ARB450 INDUSTRIAL DESIGN 2
Design methodologies; design process; creativity and product innovation. The studio exercises to which most of the time is devoted are aimed at different product ranges. The complexity and depth of the design project will increase systematically according to the semester level.
Prerequisite: ARB350
Credit Points: 20 **Contact Hours:** 6 per week

ARB452 VISUAL COMMUNICATION FOR INDUSTRIAL DESIGNERS 2
The structure of presentation layouts; product graphics, photography; introduction to three-dimensional presentation – model making techniques.
Prerequisite: ARB352
Credit Points: 4 **Contact Hours:** 2 per week

ARB453 MANUFACTURING TECHNOLOGY 2
Application of engineering mechanisms to products or systems; analysis of the performances of mechanical, electrical, hydraulic and pneumatic mechanisms in relation to particular functions; introduction to electronics. Application of engineering to design problems is the subject of studio exercises.
Prerequisite: ARB353
Credit Points: 10 **Contact Hours:** 5 per week

ARB454 CAD FOR INDUSTRIAL DESIGNERS 2
Development of skills in the use of CAD in the production of 2 dimensional engineering drawings and introduction to 3 dimensional CAD using AUTOCAD. Shading of design evaluation drawing using paintbrush.
Prerequisite: ARB354
Credit Points: 4 **Contact Hours:** 2 per week

ARB460 INTERIOR DESIGN 2
Development of the design process; furthers a systematic approach to design, encourages the application of available technologies and philosophies. Studio exercises concentrate on problems with specific parameters.
Prerequisite: ARB360 **Co-requisite:** ARB461
Credit Points: 20 **Contact Hours:** 6 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, life span economics will be introduced.
Prerequisite: ARB361 **Co-requisite:** ARB460
Credit Points: 10 **Contact Hours:** 5 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.
Prerequisite: ARB362
Credit Points: 4 **Contact Hours:** 2 per week

ARB463 VISUAL COMMUNICATION FOR INTERIOR DESIGNERS 2
The achievement of a professional standard in techniques of graphic communication whilst allowing for the development of an individual style.
Prerequisite: ARB363
Credit Points: 4 **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 judgement.
Prerequisite: ARB361
Credit Points: 4 **Contact Hours:** 2 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.
Credit Points: 4 **Contact Hours:** 1 per week

ARB493 DESIGN 7

Theory: Masters of the twentieth century in Europe and USA and their architectural styles, design philosophies and influence; architects in Australia and their influence in Australasian architecture. Projects: brief, design, construction, services and landscape; a series of architectural projects of medium to high-rise construction with emphasis on workability and compliance with codes, by-laws and regulations.
Credit Points: 20 **Contact Hours:** 5 per week

ARB495 PROFESSIONAL STUDIES 1

Specifications; estimates; cost planning and control; codes; standards; building legislation; computer applications.
Credit Points: 16 **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.
Credit Points: 8 **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.
Prerequisite: ARB440
Credit Points: 20 **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 will be complemented by field work.
Prerequisite: ARB441
Credit Points: 17 **Contact Hours:** 6 per week

ARB542 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; control of noise and good hearing conditions in buildings; basic acoustic design of auditoria.
Prerequisite: ARB442
Credit Points: 3 **Contact Hours:** 1 per week

ARB545 BUILDING SERVICES 1

Supply, connection and reticulation of electricity, gas, water and telephone services and relevant outlets and appliances. Sewerage, sullage and stormwater drainage as applicable to domestic buildings. Domestic waste disposal.
Credit Points: 4 **Contact Hours:** 2 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.
Prerequisite: ARB450
Credit Points: 20 **Contact Hours:** 6 per week

ARB552 VISUAL COMMUNICATION FOR INDUSTRIAL DESIGNERS 3

Organisation of visual communication media relevant to the presentation of a product; the use of graphic skills in visual analysis; advanced renderings and exploded technical renderings.
Prerequisite: ARB452
Credit Points: 4 **Contact Hours:** 2 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. Field studies include visits to manufacturing industries. The application of production techniques will be developed through studio design projects.
Prerequisite: ARB453
Credit Points: 8 **Contact Hours:** 3 per week

ARB554 CAD FOR INDUSTRIAL DESIGNERS 3

Development of wire frame and shaded 3D evaluation presentation, introduction to animation; advanced 2D engineering drawing; evaluation of a product's features and characteristics; refinement through 3D studies, in wire frame and shaded versions.
Prerequisite: ARB454
Credit Points: 4 **Contact Hours:** 2 per week

ARB555 ECONOMICS OF INDUSTRIAL PRODUCTION

Commercial practice, costing production, marketing, strategic planning and capital budgeting.
Credit Points: 4 **Contact Hours:** 2 per week

ARB556 MARKETING

Marketing concept, market segmentation, marketing test, methodologies of forecasting, planning and organisation, costing of products, and the business issues of design.
Credit Points: 4 **Contact Hours:** 2 per week

ARB560 INTERIOR DESIGN 3

This subject gives the major time allocation to the studio and workshop. Students develop their knowledge of systematic interior design processes and at the same time apply knowledge gained in support and co-requisite subjects.
Prerequisite: ARB460 **Co-requisite:** ARB561
Credit Points: 20 **Contact Hours:** 6 per week

ARB561 INTERIOR TECHNOLOGY 3

Continuation of ARB461, with an emphasis on commercial construction systems and the impact of regulations. High-rise buildings are examined, the planning of tennacles, partitioning and furniture systems. Special considerations for shopping centres, theatres, medical clinics, taverns and restaurants are highlighted.

Prerequisite: ARB461 **Co-requisite:** ARB560
Credit Points: 16 **Contact Hours:** 6 per week

ARB562 FURNITURE & FITTINGS 3

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

Prerequisite: ARB462
Credit Points: 4 **Contact Hours:** 2 per week

ARB563 VISUAL COMMUNICATION FOR INTERIOR DESIGNERS 3

Visual and oral communication techniques employed in the production of design presentations to clients. The program consists of a series of studio exercises and mock-up presentations in a 'forum' environment.

Prerequisite: ARB463
Credit Points: 4 **Contact Hours:** 2 per week

ARB564 ARCHITECTURAL INTERIOR SYSTEMS 2

An overview of the environmental systems used in buildings; air-conditioning and system performance, thermal and atmosphere control; the building as a comprehensive environmental system; and their impact on individual interior spaces.

Prerequisite: ARB464
Credit Points: 4 **Contact Hours:** 2 per week

ARB591 HISTORY OF ARCHITECTURE & ART 4

A global perspective of development of art and architecture of regional interest with particular emphasis on non-European traditions. Architectural development in regions such as the Far East, South East 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.

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.

Credit Points: 20 **Contact Hours:** 5 per week

ARB595 PROFESSIONAL STUDIES 2

Building economics; practice management and accounting systems; legal aspects of practice, contracts; building procurement systems.

Credit Points: 16 **Contact Hours:** 4 per week

ARB597 ELECTIVE 1

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

Credit Points: 8 **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.

Prerequisite: ARB540
Credit Points: 20 **Contact Hours:** 6 per week

ARB641 BUILDING CONSTRUCTION 4

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 will be complemented by field work.

Prerequisite: ARB541
Credit Points: 14 **Contact Hours:** 6 per week

ARB642 DESIGN SCIENCE 4

Thermal performance of buildings; artificial lighting of interiors, lamp characteristics, colour rendering, modelling, lighting quality, simplified lighting design methods, and external lighting.

Prerequisite: ARB542
Credit Points: 2 **Contact Hours:** 1 per week

ARB645 BUILDING SERVICES 2

Mechanical, electrical and hydraulic services. Hydraulics: water supply, plumbing, drainage; fire services; sprinklers, alarms, extinguishers, emergency systems; electricity: supply, substations, switchboards, metering, reticulation; vertical transportation: lifts, escalators, hoists.

Prerequisite: ARB545
Credit Points: 4 **Contact Hours:** 2 per week

ARB646 LAW OF THE BUILT ENVIRONMENT

The law as a constraint in the design and construction process. A review of the Australian and Queensland acts, local authority 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.

Credit Points: 4 **Contact Hours:** 2 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.

Prerequisite: ARB550
Credit Points: 20 **Contact Hours:** 6 per week

ARB652 VISUAL COMMUNICATION FOR INDUSTRIAL DESIGNERS 4

Structure of professional presentation, with selection of appropriate visual communication media; advanced renderings and their application to product design concepts; professional portfolio organisation.

Prerequisite: ARB552
Credit Points: 4 **Contact Hours:** 2 per week

ARB653 MANUFACTURING TECHNOLOGY 4

Organisation, planning the technologies required for CIM (Computer-integrated Manufacturing). The im-

pact of CIM on product design solutions. Field studies complement the lecture series.
Prerequisite: ARB553
Credit Points: 14 **Contact Hours:** 5 per week

ARB654 CAD FOR INDUSTRIAL DESIGNERS 4

Advanced 3D animation techniques; application of project management and evaluation techniques to design projects; 2 dimensional and 3 dimensional CAD used for the development of design concepts through to engineering drawings.
Prerequisite: ARB554
Credit Points: 6 **Contact Hours:** 2 per week

ARB660 INTERIOR DESIGN 4

Students select and develop one complex design problem from brief stage to developed design studio stage. Theory studies will be cross-referenced to studio projects and exercises.
Prerequisite: ARB560
Co-requisites: ARB661, ARB663
Credit Points: 20 **Contact Hours:** 6 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 will be examined.
Prerequisite: ARB561 **Co-requisite:** ARB660
Credit Points: 16 **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: introduces both quantitative and qualitative assessment approaches; and extends the understanding of design of furniture and its integration into interiors.
Prerequisite: ARB562
Credit Points: 4 **Contact Hours:** 2 per week

ARB663 RESEARCH METHODS

An overview of research methodology. Lectures will examine the difference between various research methods and products.
Co-requisite: ARB660
Credit Points: 4 **Contact Hours:** 2 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; introduction to 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.
Credit Points: 16 **Contact Hours:** 5 per week

ARB695 PROFESSIONAL STUDIES 3

Alternative methods of building procurement with particular emphasis on management of all phases of the building project. The Architect Act 1962 and amendments; Board of Architects Queensland Practice Examination.
Credit Points: 8 **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 proposition, and to conduct research to prove its validity.
Credit Points: Semester 1: 4 Semester 2: 20
Contact Hours: Semester 1: 2 per week. Semester 2: 5 per week

ARP501 INTRODUCTION TO FACILITIES MANAGEMENT

The concept of facilities programming and management. The notion of human behaviour over time and the monitoring of building performance as the major focus in the day-to-day management of facilities in a realistic working environment.
Credit Points: 8 **Contact Hours:** 2 per week

ARP502 ENVIRONMENTAL COMMUNICATIONS

Exploration of contemporary ideas, theories, methods; and the practical application of research, analysis, evaluation and the ultimate synthesis of ideas related to interiors. The emphasis is on user-oriented design. These ideas are applied in the studio.
Credit Points: 16 **Contact Hours:** 6 per week

ARP503 WORKPLACE DESIGN

The issues of environmental communications; the physiological, psychological and sociological aspects of workplace interiors.
Credit Points: 18 **Contact Hours:** 6 per week

ARP504 PROFESSIONAL PRACTICE & MANAGEMENT FOR INTERIOR DESIGNERS 1

The role and responsibilities of the interior designer in professional practice; job administration, liability, design protection, designer and client relationships; communication management and organisation of project.
Credit Points: 11 **Contact Hours:** 3 per week

ARP505 PROFESSIONAL PRACTICE & MANAGEMENT FOR INTERIOR DESIGNERS 2

Task scheduling; planning systems and control models; program evaluation and review techniques; critical path monitoring; organisational development; personnel recruitment and staffing structures; organisational models; union and labour relations.
Credit Points: 4 **Contact Hours:** 2 per week

ARP600 BUILDING EVALUATION & BRIEF DEVELOPMENT

Formulation of the client's brief, definition of the design problem and exploration of design methodologies. Evaluation of building types, suitability of spaces to functions.
Credit Points: 8 **Contact Hours:** 2 per week

ARP601 FILM, TV & DESIGN FOR THEATRE

Introduction to the basic language, technology and procedures of film and video production, roles of production and design teams, script analysis, preproduction planning, story boarding, set design and construction, model-making, make-up design, lighting and camera work. This will be given through a series of lectures, visits and projects.
Credit Points: 13 **Contact Hours:** 6 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.
Credit Points: 18 **Contact Hours:** 6 per week

ARP613 ADVANCED ERGONOMICS 1

Man-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.
Credit Points: 2 **Contact Hours:** 1 per week

ARP623 ADVANCED ERGONOMICS 2

Systematic ergonomic evaluation methods and their application to design problems. Lectures and seminars relevant to case studies concentrated on the ergonomic evaluation of the working and living environment, eg. key-punch operator work station, bus driver work station and ergonomic evaluation of an assembly line.
Prerequisite: ARP613
Credit Points: 4 **Contact Hours:** 2 per week

ARP642 CASE STUDIES

Case study evaluation by practising designers; study of different evaluation methods and techniques; the application of evaluation methods through individual case studies. All design factors of manufactured products are evaluated in depth.
Credit Points: 4 **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 and design management, design documentation, concept of design evaluation and management action, application of design theory to design management.
Credit Points: 2 **Contact Hours:** 1 per week

ARP653 PROFESSIONAL PRACTICE

The role and responsibilities of the industrial designer in professional practice. Lectures cover: job administration, liability, design protection, designer and client relationships.
Credit Points: 2 **Contact Hours:** 1 per week

ARP671 HISTORY, THEORY & CRITICISM OF INDUSTRIAL DESIGN

The development of industrial design and its relationship to ideas, technology and arts, and the development of industrial design from eighteenth century to the present day. It also covers the study of Australian inventions and their impact on product design in Australia.
Credit Points: 2 **Contact Hours:** 1 per week

ARP672 INDUSTRIAL DESIGN 1

ARP673 INDUSTRIAL DESIGN 2

This course consists of studio work in which students design a wide range of products or systems. The emphasis will be on projects generated from local industry and community. The complexity and depth of the design project will increase systematically according to the semester level.
Prerequisite: ARP672 for ARP673
Credit Points: 16 **Contact Hours:** 6 per week

ARP674 INDUSTRIAL DESIGN RESEARCH 1

This course consists of the topic selected by a student and approved and supervised by the industrial design staff. Examples of topics are: microsurgical equipment design, bushfire safety equipment, mobile dental clinic in isolated regions and interactive display in psychological testing.
Prerequisite: ARP673
Credit Points: 20 **Contact Hours:** 8 per week

ARP675 INDUSTRIAL DESIGN RESEARCH 2

This course 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 will be approved and supervised by industrial design staff.
Prerequisites: ARP672, ARP674
Credit Points: 20 **Contact Hours:** 8 per week

ARP676 ADVANCED CAD FOR INDUSTRIAL DESIGNERS 1

CAD in the design process. 2 dimensional and 3 dimensional application of appropriate CAD programs. Development of a design project through the interactive use of CAD and related engineering programs as an aid to design analyses and finalisation.
Credit Points: 4 **Contact Hours:** 2 per week

ARP677 ADVANCED CAD FOR INDUSTRIAL DESIGNERS 2

CAD/CAM in the design, analysis and manufacturing process. 3 dimensional solid modelling, finite analyses, and CAM will be employed. A project will be taken from first concept through final documentation. The presentation, technical description, engineering analyses and finalisation to Computer Numerically Controlled (CNC) testing and prototype production of a small product.
Credit Points: 4 **Contact Hours:** 2 per week

AYB100 ACCOUNTING FOR MANAGERS

Accounting in the business world; fundamental accounting recording systems, preparation of financial statements for servicing and merchandising firms, examination of financial statements of partnership and limited companies; internal control of cash, inventories and non-current assets; analysis and interpretation of financial statements; introduction to managerial accounting, cost-volume-profit analysis, the nature of planning and control, and managerial decision making. **(Note:** incompatible with AYB104)
Credit Points: 12 **Contact Hours:** 3 per week

AYB101 COMPUTERISED ACCOUNTING SYSTEMS

Management information systems and accounting systems; database and files; data communication; systems development life cycle; analysis and design of accounting systems, including sales, accounts receivable, inventory, purchases, accounts payable, non-current assets, payroll and general ledger systems; accounting software (such as SYBIZ), database software (such as DBASE III PLUS) and spreadsheet software (such as LOTUS 1-2-3); internal control in computer systems.
Prerequisite: FNB102
Credit Points: 12 **Contact Hours:** 4 per week

AYB102 ACCOUNTING DISCLOSURE & AUDITING

This subject aims to extend the student's knowledge of financial accounting through the study of tax effect accounting; consolidations; acquisition of assets (no cross holdings) and company disclosure. It also introduces students to auditing through the study of an 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. The effectiveness of accounting disclosure and auditing will then be examined.
Prerequisite: AYB111
Credit Points: 12 **Contact Hours:** 4 per week

AYB103 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; management information systems in government accounting; internal audit in government and efficiency audits; accounting for government business enterprises.
Prerequisite: AYB110
Credit Points: 12 **Contact Hours:** 3 per week

AYB104 PRINCIPLES OF ACCOUNTING

Accounting in the business world; fundamental accounting recording systems, preparation of financial statements for servicing and merchandising firms, examination of financial statements of partnership and limited companies; internal control of cash, inventories and non-current assets; analysis and interpretation of financial statements; introduction to managerial accounting, cost-volume-profit analysis, the nature of planning and control, and managerial decision making. **(Note:** Incompatible with AYB100)
Credit Points: 12 **Contact Hours:** 3 per week

AYB110 ACCOUNTING

Elements of financial statements; characteristics of financial information; recording and classifying transactions; end of period adjustments; financial statements for service and merchandising firms; accounting for cash, receivables, inventory and non-current assets.
Credit Points: 12 **Contact Hours:** 4 per week

AYB111 FINANCIAL ACCOUNTING

The procedures and principles relevant to both partnerships and companies for: formation, operations, reporting dissolution/liquidation, funds statements and analysis and interpretation of financial statements.
Prerequisite: AYB110
Credit Points: 12 **Contact Hours:** 4 per week

AYB112 COMPANY ACCOUNTING

Accounting for company income tax (tax-effect accounting); acquisition of assets (including companies); consolidated financial statements; equity accounting and disclosure in company financial statements.
Prerequisite: AYB111
Credit Points: 12 **Contact Hours:** 4 per week

AYB113 ACCOUNTING THEORY & APPLICATIONS

The evaluation of accounting theory; regulatory framework and theories of regulation; conceptual framework; theory of the firm developed into the contracting cost framework; profits: determination and disclosure, revenue and expense recognition; assets definition, recognition, measurement and classification; leases; foreign currency translations and transactions; intercorporate investments and joint ventures; politicisation of accounting.
Prerequisite: AYB112
Credit Points: 12 **Contact Hours:** 4 per week

AYB210 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; the audit report.
Prerequisite: AYB112
Credit Points: 12 **Contact Hours:** 3 per week

AYB211 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.
Prerequisite: AYB210
Credit Points: 12 **Contact Hours:** 3 per week

AYB212 COMPUTER SECURITY & AUDIT

Impact of EDP on auditing, computerised accounting systems, general EDP controls, EDP application controls, generalised audit software (GAS), computer-assisted audit techniques, special EDP environments, fraud and privacy.
Prerequisite: AYB210
Credit Points: 12 **Contact Hours:** 3 per week

AYB213 ACCOUNTING 2

Tax effect accounting; reorganisation of capital; liquidations; accounting for leases; accounting ethics and social responsibility; financial mathematics; project evaluation; the capital market; lease financing.
Prerequisite: AYB111
Credit Points: 12 **Contact Hours:** 4 per week

AYB217 INTRODUCTORY ACCOUNTING

The accounting equation and the double entry principle; recording business transactions; end of period adjustments; financial statements and closing entries; accounting for merchandising operations; specialised journals and subsidiary ledgers; cash controls; accounting for partnerships; accounting for companies; interpretation of financial statements; setting up an accounting system for a legal practice.
Credit Points: 12 **Contact Hours:** 3 per week

AYN101 ACCOUNTING PRINCIPLES

Accounting concepts and principles; 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 special managerial decision making.
Credit Points: 12 **Contact Hours:** 3 per week

AYN102 ACCOUNTING RESEARCH

The research methodology used in the field of accounting and related disciplines; the use of certain research techniques in order to assist students in their research dissertation and preparation of research papers. The subject aims to develop a capacity to build a theoretical model, to design an appropriate research methodology and to understand and utilise statistical analysis for accounting research purposes. This subject is a prerequisite for BSN100 Dissertation and should therefore normally be attempted immediately prior to enrolment in BSN100 Dissertation.
Credit Points: 12 **Contact Hours:** 3 per week

AYN103 ADVANCED COMPANY ACCOUNTING

An overview of consolidated financial statements; changes in degree of ownership; reverse subsidiaries and reciprocal share holdings; consolidation and the existence of preference shares; translation and consolidation of foreign currency financial statements; consolidated summary of sources and applications of funds; accounting for joint ventures, extractive industries, construction contracts, leases; foreign currency transactions; segment reporting.

Prerequisite: AYN117

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

AYN104 AUDIT SAMPLING

Statistical sampling methods proposed for and employed 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 error, attribute, variable and probability proportional-to-size sampling.

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

AYN106 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; computer auditing; and auditing standards.

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

AYN107 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 case.

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

AYN109 COMPUTER AUDITING

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

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

AYN111 EXTERNAL REPORTING ISSUES

Contemporary issues in external reporting; various practical accounting and reporting issues for: 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 the research and professional literature to enhance students' understanding of professional problems.

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

AYN112 FINANCIAL ACCOUNTING 1

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 sources and applications of funds; analysis and interpretation of financial statements.

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

AYN113 FINANCIAL ACCOUNTING 2

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

Prerequisite: AYN112

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

AYN114 FINANCIAL ACCOUNTING 3

The evolution of accounting theory; profits: determination and disclosure; assets: definition, recognition; intangible assets; extractive industries; liabilities: definition, recognition, measurement and classification; leases; foreign operations; joint ventures.

Prerequisite: AYN113

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

AYN115 FINANCIAL ACCOUNTING HONOURS

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

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

AYN117 FINANCIAL REPORTING

Conceptual framework; preparation and presentation of financial statements; analysis and interpretation of financial statements; accounting for income tax; valuation of companies; goodwill and acquisition of assets; equity accounting.

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

AYN118 INTERNAL AUDITING

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

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

AYN119 INTERNATIONAL ACCOUNTING

An overview of issues related to international accounting and the international accounting standard setting process. Some of the 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.

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

AYN300 ACCOUNTING 1 (PY)

An overview of consolidated financial statements; changes in degree of ownership; reverse subsidiaries and reciprocal share holdings; consolidation of foreign currency financial statements; consolidated summary of sources and applications of funds; accounting for joint ventures, extractive industries, construction contracts, leases; foreign currency transactions; segment reporting.

Prerequisite: AYN117

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

AYN301 AUDITING (PY)
Examination at an advanced level of auditing standards and their practical application, judgemental and statistical audit sampling EDP controls, and computer-assisted audit techniques.
Prerequisite: FNN300
Credit Points: 12 **Contact Hours:** 3 per week

AYN302 SPECIAL TOPIC – PUBLIC ACCOUNTING
A study of topical areas in the public accounting area.
Credit Points: 12 **Contact Hours:** 3 per week

AYP100 ACCOUNTING PRINCIPLES 1
Accounting concepts and principles; 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 special managerial decision making.
Credit Points: 12 **Contact Hours:** 3 per week

BNB103 GENERAL ELECTIVE
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.
Credit Points: 4 **Contact Hours:** 2 per week

BNT100 INDUSTRIAL EMPLOYMENT 1
BNT200 INDUSTRIAL EMPLOYMENT 2
BNT300 INDUSTRIAL EMPLOYMENT 3
BNT400 INDUSTRIAL EMPLOYMENT 4
BNT500 INDUSTRIAL EMPLOYMENT 5
BNT600 INDUSTRIAL EMPLOYMENT 6
BNT700 INDUSTRIAL EMPLOYMENT 7
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.
Credit Points: 3 each
Contact Hours: 15 weeks each

BSB102 MANAGEMENT & ORGANISATION
An introduction to the theory, process and practice of management and organisations. Emphasis is placed on the importance of people in achieving organisational objectives and the need for participants in organisations to become more analytical and strategic in their approach to managing various organisations including those in both the public and private sector.
Credit Points: 12 **Contact Hours:** 3 per week

BSB400 RESEARCH METHODOLOGY
This subject is designed to equip students with a range of ideas and methods which allow them to analyse, evaluate and conduct research in various discipline areas related to management. The subject is essential preparation for the thesis. Areas covered include science and knowledge – paradigms; analysis and criticism; research design; data collection; data manipulation and interpretation; presentation.
Credit Points: 12 **Contact Hours:** 3 per week

BSB401 MANAGEMENT SEMINAR
Students develop in detail the research questions and approaches which they intend to examine or use in their thesis. Research proposals are presented and evaluated in a seminar program. The subject involves: preliminary selection of thesis topic; selection of supervisor and agreement to supervise thesis; specific literature review; seminar on specific literature review; methods, approach and research design; seminar on methods, approach and research design; finalisation and approval of thesis topic.
Credit Points: 12 **Contact Hours:** 3 per week

BSB402 ADVANCED READINGS PROGRAM
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.
Credit Points: 12 **Contact Hours:** 3 per week

BSN100 DISSERTATION
The dissertation should reflect the application of theoretical analysis or problem-solving in accounting, managerial accounting or finance, or accounting legal studies. Students are advised to seek a topic, and to approach the course coordinator early in their program. The dissertation topic proposal must be presented as a seminar to Faculty staff in the semester prior to enrolling in the dissertation.
Prerequisite: AYN102
Credit Points: 24

BSN116 THESIS/PROJECT
Students may complete a thesis or a project. A thesis is a scholarly work which provides an opportunity to combine an appropriate theory or perspective and appropriate research methodology to examine a significant communication problem or issue. Main text will not normally exceed 30,000 words. A project is an approved program of substantive work leading to a report, communication program, printed or audio-visual production, disc or some other product in which theories of communication are applied to some problem or issue.
Credit Points: 24

BSN130 CURRENT ISSUES IN AUSTRALIAN MANAGEMENT A
This subject runs concurrently with BSN131 to provide a review of the substantive disciplines within management and to highlight key issues in the current theory and practice of management. BSN130 covers an analysis of critical environmental changes. It focuses on changes in the economy including industrial relations and technological change outlining the key issues that are current in these areas.
Credit Points: 12 **Contact Hours:** 3 per week

BSN131 CURRENT ISSUES IN AUSTRALIAN MANAGEMENT B
This subject runs concurrently with BSN130 to provide a review of the substantive disciplines within management and to highlight key issues in the current theory and practice of management. BSN131 focuses on current issues within strategic management, with particular emphasis on financial management, strategy and planning and the management of human resources.
Credit Points: 12 **Contact Hours:** 3 per week

BSN132 RESEARCH DESIGN & DATA ANALYSIS
Research theory and research procedures in the social sciences with special reference to practical applications in management areas such as economics,

marketing and human resource management. Problems of logical inference, observation techniques, advanced data analysis techniques and the advantages and disadvantages of their use in different contexts.
Credit Points: 12 **Contact Hours:** 3 per week

BSN133 CASE STUDY PROGRAM
Case studies in management; Australian case studies (for example from the Melbourne University Data Base) analysis of interdisciplinary problems, exploration of research problems and techniques of team-management and problem solving.
Credit Points: 12 **Contact Hours:** 4 per week

BSN134 INITIAL PROJECT IN MANAGEMENT
An investigation by individuals or small groups of students into a managerially significant issue or problem. Students are expected to choose an area of investigation that connects with their final project (BSN136 and BSN137).
Credit Points: 12 **Contact Hours:** 3 per week

BSN135 APPLIED RESEARCH & DESIGN
Practical applications of research theory and analysis. Students are required to develop a research proposal of interest to them and related to each student's proposed research project (BSN136). The student conducts a preliminary or pilot study on a limited number of cases or areas of interest in the proposed research field and completes a research report justifying and assessing the chosen research methodology and demonstrating the research techniques to be used in the full study. Annotated comments on the report must also show awareness of different designs and statistical techniques that might have been used demonstrating a good grasp of elements covered in BSN132 and the earlier analyses of case study material in this course.
Credit Points: 12 **Contact Hours:** 3 per week

BSN136 PROJECT & SEMINAR A
Students are required to write an original project on an area of interest in the management field. During the first year of a full-time program (second of part-time) the student should finalise the choice of area. The Management Graduate Studies Board then nominates a supervisor for the research. Once the area of interest is chosen, the student is expected to relate to that specialisation in other courses for example in the Case Study Program, in initial Project in Management and in Applied Research Design. The project itself must demonstrate the student's ability to combine analytic and theoretical ability with an understanding of practical features.
Credit Points: 12 **Contact Hours:** 3 per week

BSN137 PROJECT & SEMINAR B
Students are required to write an original project on an area of interest in the management field. During the first year of a full-time program (second of part-time) the student should finalise the choice of area. The Management Graduate Studies Board then nominates a supervisor for the research. Once the area of interest is chosen, the student is expected to relate to that specialisation in other courses for example in the Case Study Program, in initial Project in Management and in Applied Research Design. The project itself must demonstrate the student's ability to combine analytic and theoretical ability with an understanding of practical features.
Credit Points: 24 **Contact Hours:** 3 per week

BSP100 DISSERTATION
This subject is the culmination of the Honours degree in that students apply the theory and research material covered in earlier subjects to explore in some depth an applied or theoretical topic in their chosen discipline. The dissertation is based on information from secondary sources and consists of a written report of approximately 10,000 words in length.
Credit Points: 24 **Contact Hours:** 3 per week

BSP101 ADVANCED COMMUNICATION SEMINAR
Designed to prepare students for writing their Honours thesis. There is a component of directed research, which may include further course work and other work as directed by the supervisor; a component of group work devoted to thesis writing. Students are expected to complete a literature review of their research area, a thesis proposal, and give a seminar presentation.
Credit Points: 12 **Contact Hours:** 3 per week

BSP102 COMMUNICATION SEMINAR
This subject is designed to prepare students for writing their Honours dissertation. There is a component of directed research, which may include further course work and other work as directed by the supervisor. In addition, the subject includes a component of group work devoted to dissertation writing. Students are expected to complete a literature review of their research area, a dissertation proposal and give a seminar presentation.
Credit Points: 12 **Contact Hours:** 3 per week

BSP103 COMMUNICATION RESEARCH METHODOLOGIES
Foundation for understanding the empirical historical and critical/analytical research studies students read in the Honours degree and for conducting research for masters and doctoral theses. Theory and research methods: developing research models and hypotheses and reviewing basic research principles. Empirical methods: measurement issues, operationalising concepts, validity and reliability, sampling, questionnaire design, codebook, univariate statistics, simple cross-tabulations, experimental designs, tests of significance and measures of association; statistical analysis: multi-variate techniques (including table elaboration); evaluation research, historical and comparative research, ethical issues in research, exercises in scale construction; using SPSS-X for analysis of survey and experimental results. Historical and critical/analytical methods: applications of theory, primary and secondary sources, accessing pertinent data.
Credit Points: 12 **Contact Hours:** 3 per week

CEB102 CIVIL ENGINEERING 1
An introduction to the profession of civil engineering, its scope and variety, and its many branches.
Credit Points: 2 **Contact Hours:** 1 per week

CEB184 ENGINEERING MECHANICS 1
Introduction to statics, concept of forces, moments and couples; resolution and resultant of forces acting on a particle or rigid body; equilibrium of particle or rigid body under the action of forces and/or moments; analytical and graphical methods for plane truss analysis; shear force and bending moment in beams; the properties of sections.
Credit Points: 7 **Contact Hours:** 3 per week

CEB185 ENGINEERING MECHANICS 2
Fundamental principles of structural mechanics, stress, strain and elasticity; indeterminate structures and compatibility; simple beam theory including the flexure formula and the shear stress formula; torision of circular sections; stresses in thin-walled pressure vessels; shear force and bending moment diagrams; hydrostatics.
Co-requisites: CEB184[R]
Credit Points: 7 **Contact Hours:** 3 per week

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.
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 will be discussed. Site visit and laboratory testing may be included.
Prerequisite: CEB185[R]
Co-requisites: CEB281[R], CEB282[R]
Credit Points: 7 **Contact Hours:** 3 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. The evaluation of deflections in concrete structures and the analysis of long and short columns in uniaxial bending.
Prerequisite: CEB185[R]
Co-requisites: CEB281[R], CEB282[R]
Credit Points: 6 **Contact Hours:** 3 per week

CEB220 CIVIL SYSTEMS 1
Computer applications in civil engineering science; hardware and software integration within the data logging environment will be discussed.
Prerequisites: CSB191[R], MAB193[R], CEB185[R]
Co-requisites: CEB252, CEB260,
Credit Points: 6 **Contact Hours:** 3 per week

CEB231 CONCRETE TECHNOLOGY
Materials: cement, aggregates, water quality, pozzolans, chemical admixtures and special materials. Testing: materials and concrete including quality control. Characteristics of concrete: plastic and hardened properties and influences of environment. Mix design: design for standard and special requirements.
Credit Points: 7 **Contact Hours:** 3 per week

CEB240 SOIL MECHANICS 1
Systematic 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.
Prerequisite: CEB185[R]
Credit Points: 6 **Contact Hours:** 3 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 of shallow foundations; design of shallow foundations; computer applications in seepage and consolidation.
Prerequisite: CEB240[R]
Credit Points: 7 **Contact Hours:** 3 per week

CEB253 STRUCTURAL ENGINEERING 1
The calculation of deflections for determinate beams, frames and trusses and the analysis of indeterminate structures by the method of superposition; and computer-based analytical procedures.
Prerequisite: CEB185[R]
Co-requisites: MAB493, CEB282[R],
Credit Points: 6 **Contact Hours:** 3 per week

CEB260 FLUID MECHANICS
Introduction to fluid mechanics and 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. The subject includes lectures, tutorials and practical work.
Prerequisites: CEB185[R], MAB193
Credit Points: 7 **Contact Hours:** 3 per week

CEB281 STRENGTH OF MATERIALS
Extension of elastic theory from engineering mechanics into more complex states of stress and shape; composite beams; stress and strain transformations; combined loading; unsymmetrical bending; shear flow; shear centre; torsion; theories of failure; stress concentrations and fatigue.
Prerequisite: CEB185[R]
Credit Points: 6 **Contact Hours:** 2 per week

CEB282 STATICS
The structural behaviour of trusses, beams and frames. Qualitative evaluation of deflected shapes, shear force and bending moment diagrams. Load paths and structural idealisation of real structures.
Prerequisite: CEB185[R]
Co-requisite: CEB184[R]
Credit Points: 2 **Contact Hours:** 1 per week

CEB291 CIVIL ENGINEERING MATERIALS
Physical, chemical and engineering properties of common civil engineering materials. Ferrous and nonferrous metals and alloys, timber, bitumen, cladding materials, ploymers, corrosion of materials and protective measures. Selection of materials. Role of quality control in engineering subjects.
Prerequisites: MEB171, MEB133
Credit Points: 7 **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.
Contact Hours: 5 weeks

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 will be emphasised; student will prepare design calculations and sketches with the help of design aids and computer software; the development

of problem solving skills will be emphasised throughout the projects.
Prerequisites: CEB201[R], CEB202[R], CEB240, CEB253, CEB220
Co-requisites: CEB354,CEB231, CEB312, CEB241
Credit Points: 8 **Contact Hours:** 4 per week

CEB305 CONSTRUCTION PLANNING & ECONOMICS

The use of manual and computer based methods for the planning and programming of projects. The fundamental principles of economic and financial analysis pertaining to both the planning and execution of engineering projects.
Prerequisite: CEB307[R]
Credit Points: 6 **Contact Hours:** 3 per week

CEB306 CONCRETE STRUCTURES 2

Basic 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.
Prerequisite: CEB202[R]
Credit Points: 7 **Contact Hours:** 3 per week

CEB307 CONSTRUCTION PRACTICE

Basic procedures of civil engineering construction. This subject provides a foundation for further construction studies and also gives a practical perspective to later theoretical subjects.
Prerequisites: CEB231[R], CEB281[R]
Credit Points: 6 **Contact Hours:** 3 per week

CEB312 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.
Prerequisites: SVB306[R], MAB193, CEB291[R]
Co-requisites: MAB493, CEB240
Credit Points: 6 **Contact Hours:** 3 per week

CEB313 TRAFFIC ENGINEERING

Traffic theory including traffic behaviour, models, traffic management analysis including unsignalised and signalised intersections, street lighting, signs and markings, barriers and parking. Traffic studies and transport planning procedures.
Prerequisite: MAB493 **Co-requisite:** CEB312
Credit Points: 6 **Contact Hours:** 3 per week

CEB354 STRUCTURAL ENGINEERING 2

The analysis of indeterminate structures using moment distribution and matrix structural analysis techniques. Analysis of simple cable structures.
Prerequisites: CEB253[R], MAB493
Credit Points: 7 **Contact Hours:** 3 per week

CEB355 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.
Prerequisite: CEB281[R]
Co-requisites: MAB893, CEB354
Credit Points: 6 **Contact Hours:** 3 per week

CEB359 PRINCIPLES OF STRUCTURES 1

Terminology, forces and reactions; loading on structures, equilibrium and stability; co-planar and non co-planar forces; resolution of forces; mechanism of structural components under load: compression, tension, bending, shear, deflection. Connections.
Credit Points: 4 **Contact Hours:** 2 per week

CEB360 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.
Prerequisite: CEB260[R] **Co-requisite:** MAB493
Credit Points: 6 **Contact Hours:** 3 per week

CEB361 HYDROLOGY

An introduction to hydrology and urban drainage design; hydrologic cycle, rainfall and runoff; groundwater evapotranspiration, statistical concepts, urban drainage design; unit hydrograph methods; flood studies; data generation, storage estimation.
Prerequisite: CEB260[R] **Co-requisite:** CEB360
Credit Points: 6 **Contact Hours:** 3 per week

CEB364 ENGINEERING SCIENCE 2

An introduction to hydraulic engineering for surveyors. Fluids and fluid flow in pipes and channels. Flow measurement. Hydraulic models. Pumps and pump characteristics.
Prerequisite: MAB199[R]
Credit Points: 6 **Contact Hours:** 3 per week

CEB370 PUBLIC HEALTH ENGINEERING 1

An introduction to 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.
Prerequisite: CHB346[R]
Credit Points: 6 **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.
Contact Hours: 5 weeks

CEB393 ENGINEERING INVESTIGATION & REPORTING 1

The appropriate techniques of investigation and reporting on civil engineering processes.
Prerequisite: CMB108[R]
Credit Points: 3 **Contact Hours:** 2 per week

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 will be included.
Prerequisites: CEB361[R], CEB305[R], CEB313[R]
Co-requisites: CEB470, CEB440,
Credit Points: 5 **Contact Hours:** 3 per week

CEB403 PROFESSIONAL PRACTICE

Engineering organisations, project initiation, documentation, form of contract, contract administration, arbitration, safety and insurances, legal responsibilities, ethics. In addition students are given preparation in job applications and interview techniques.
Prerequisite: CSB191[R] **Co-requisite:** CEB305
Credit Points: 7 **Contact Hours:** 2 per week

CEB404 FIELD TRIP

This subject involves site visits to several civil and structural projects (generally under construction in south east Queensland). The practical inspections are supervised by lecturing staff and engineers associated with the project, and allow valuable consolidation of the theoretical aspects of other subjects.
Co-requisites: CEB201, CEB202, CEB312, CEB360
Credit Points: 3 **Contact Hours:** 1.5 per week

CEB405 CIVIL ENGINEERING DESIGN 2

Continuation of CEB304, with topics covering structural and civil engineering design, ie. municipal civil/structural projects. Field visits are required. More general problem solving skills are to be developed so that graduates can successfully complete projects other than those covered during the course.
Prerequisites: CEB341, CEB304, CEB231[R]
Co-requisites: CEB460,CEB470
Credit Points: 6 **Contact Hours:** 3 per week

CEB406 STRUCTURAL APPLICATIONS

Analysis, design, supervision of construction and performance of structures. The subject will evolve around case studies. Topics include: structural systems, structure 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.
Prerequisites: CEB355, CEB291, CEB354[R]
Credit Points: 8 **Contact Hours:** 3 per week

CEB422 CIVIL SYSTEMS 2

Civil engineering systems: understanding and applying advanced civil engineering software, methods of error checking and model validation. Experimental instrumentation and data logging. Financial systems: financial statements for civil engineering enterprises, measurement of assets and liabilities, depreciation rates, interpretation of published financial statements.
Prerequisites: CEB220[R], CEB241R], CEB460[R], CEB355[R]
Credit Points: 3 **Contact Hours:** 1 per week

CEB430 BUILDING CONSTRUCTION

Through lectures and tutorials this subject will provide a broad appreciation of building techniques and principles. The subject coverage will include details of building construction from footings to fitting out for low and high-rise structures including appropriate building regulations.
Prerequisite: CEB305[R]
Credit Points: 3 **Contact Hours:** 2 per week

CEB459 PRINCIPLES OF STRUCTURES 2

Loading on buildings. Foundations and footings. Timber, construction, floor, wall and roof framing and cladding, fastening and connections. Structural stability. Masonry construction: brickwork and blockwork, loadbearing construction, continuity, stiffening. Codes.
Prerequisite: CEB353[R]
Credit Points: 4 **Contact Hours:** 2 per week

CEB460 HYDRAULIC ENGINEERING 2

Hydraulics with particular emphasis on 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; and the theory and practice relating to fixed and mobile boundary, natural scale and distorted models.
Prerequisite: CEB360[R]
Co-requisite: CEB361[R]
Credit Points: 7 **Contact Hours:** 3 per week

CEB470 PUBLIC HEALTH ENGINEERING 2

Development of principles taught in CEB370 to enable functional design of treatment units to be undertaken. An introduction to sewerage and water reticulation. On completion of this subject the student should be able to proceed to simple design exercises in water supply and sewerage and treatment processes.
Prerequisite: CEB370[R]
Credit Points: 5 **Contact Hours:** 3 per week

CEB491 PROJECT (CIVIL)

The student is required to undertake a relatively difficult task in an area of civil engineering practice requiring further 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.
Prerequisites: Student must normally be in final year of course, however students in the penultimate year of their course may be given special permission to attempt CEB491.
Co-requisites: CEB393, CEB492
Credit Points: 9 **Contact Hours:** 3 per week

CEB492 ENGINEERING INVESTIGATION & REPORTING 2

Verbal and written presentation techniques of civil engineering investigation topics. Each student will be required to prepare a report and deliver a 1/2 hour lecture on a civil engineering investigation topic.
Prerequisite: CEB393[R]
Credit Points: 3 **Contact Hours:** 1 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. Subject is offered irregularly. When offered the subject material will be advertised by the Head of School.
Prerequisites: Students must be substantially in the final year of their course.
Credit Points: 6 **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.
Prerequisites: CEB307[R], CEB305[R]
Credit Points: 5 **Contact Hours:** 3 per week

CEB504 ENGINEERING SCIENCE 3

Hydrology; rainfall, stream flow measurement; hydraulic design of drainage. Soil mechanics for sur-

veyors; definition, properties and grading of soils; roadwork, foundation and retaining wall design; soil stability. Concrete technology; properties, manufacture and testing of concrete; elementary reinforced concrete design.
Co-requisite: CEB364[R]
Credit Points: 6 **Contact Hours:** 3 per week

CEB505 PROJECT MANAGEMENT & ADMINISTRATION

Using case studies and 'role playing' techniques, students will be required to develop solutions to a variety of project management problems and to submit reports and make presentations regarding these exercises.
Prerequisite: CEB305[R]
Credit Points: 6 **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. Subject is offered irregularly. When offered the subject material will be advertised by the Head of School.
Prerequisites: Students must be substantially in the final year of their course.
Credit Points: 6 **Contact Hours:** 3 per week

CEB511 TRANSPORT ENGINEERING 2

A series of lectures and practical work focussing in depth on two aspects of transport engineering, rural road upgrading and small urban area transportation planning and road needs requirements. Work covered includes highway upgrading, deficiency analysis, traffic accident analysis, traffic flow simulation, staged development including 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.
Co-requisite: CEB512
Credit Points: 6 **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.
Prerequisite: CEB313[R]
Credit Points: 6 **Contact Hours:** 3 per week

CEB520 FINITE ELEMENT METHODS

Finite element, finite difference and similar numerical techniques. Theroretical and modelling considerations are covered in the context of case studies in structures, soil mechanics and hydraulics.
Prerequisite: CEB220[R]
Credit Points: 6 **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. Lectures, practical work and field visits covering the above topic.
Prerequisites: CEB355[R], CEB306[R]
Co-requisite: CEB291
Credit Points: 6 **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.
Prerequisite: CEB341[R]
Credit Points: 6 **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 other methods of deep foundation improvement. Rock excavation and rock slope stabilisation. Soil improvement, including mechanical and chemical stabilisation, soil reinforcement and other techniques which may be economically feasible. Anchoring in soil and rock. Principles of earth and rockfill design and construction.
Prerequisite: CEB341[R]
Credit Points: 6 **Contact Hours:** 3 per week

CEB551 ADVANCED STRUCTURAL DESIGN

This subject will widen and deepen the experience of undergraduates in the structural design area. Emphasis is placed on the design of more complex structures. Normally three projects will be studied which will involve some or all of: design in new materials, new analytical techniques, new codes of practice, novel structures.
Prerequisites: CEB354[R], CEB201[R], CEB306
Co-requisite: CEB405
Credit Points: 6 **Contact Hours:** 3 per week

CEB559 PRINCIPLES OF STRUCTURES 3

Structural properties of mild steel and high tensile steel. Structural framing and connections. Structural systems in steel: beams and columns, portal frames, space frames, trusses, tensile structures.
Prerequisite: CEB453[R]
Credit Points: 4 **Contact Hours:** 2 per week

CEB560 HYDRAULIC ENGINEERING 3

Lectures, tutorial, practical work and site visits examining selected topics in water engineering. Topics will be chosen from hydrology, mobile bed hydraulics, river hydraulics, hydraulic structures, urban drainage, physical and mathematical modelling.
Prerequisites: CEB361[R], CEB460[R]
Credit Points: 6 **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 for coastal studies. At least one major site visit will be required.
Prerequisite: CEB360[R] **Co-requisite:** CEB460
Credit Points: 6 **Contact Hours:** 3 per week

CEB570 PUBLIC HEALTH ENGINEERING 3

Basic solid waste management (of domestic, commercial and industrial wastes); the general principles of industrial liquid waste management, with examples of some important industries. Students completing this subject will have gained a basic understanding of solid and industrial liquid waste management.
Co-requisite: CEB470[R]
Credit Points: 6 **Contact Hours:** 3 per week

CEB659 PRINCIPLES OF STRUCTURES 4
Structural behaviour of reinforced concrete. Basic theory of reinforced concrete beams and columns. Structural elements systems in reinforced concrete: post-and-beam, one-and two-way slab, waffle slab, flat slab. Columns. Frames. Framing, walling and roofing in reinforced concrete.
Prerequisite: CEB553[R]
Credit Points: 4 **Contact Hours:** 2 per week

CEB701 CIVIL ENGINEERING QUANTITIES 1
Introduction to 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, (types of structures, foundations, prestressed concrete). It includes a brief introduction to computer applications such as earthwork calculations, etc.
Credit Points: 4 **Contact Hours:** 2 per week

CEB801 CIVIL ENGINEERING QUANTITIES 2
Further study of SMM of Civil Engineering Quantities leading to measurement of: foundations, (pad footings, piles and piers); bridges, (further study, including abutments, superstructure, approach embankments, safety structures); wharves, (over water work, deck structures); specialised earthworks, (tunnelling, dredging, open cuts, earthworks, earth dams).
Prerequisite: CEB701[R]
Credit Points: 3 **Contact Hours:** 1.5 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.
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 the powers and responsibilities of the municipal engineer are covered.
Credit Points: 8 **Contact Hours:** 2 per week

CEP127 ROAD & TRAFFIC ENGINEERING
Urban traffic management, parking systems, surveys, intersection analysis with emphasis on the design and evaluation of the urban road network. The design of rural roads. Design of pavement structures. Pavement management.
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.
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.
Credit Points: 12 **Contact Hours:** 3 per week

CEP172 WATER QUALITY ENGINEERING
Characteristics of liquid wastes. Their effect on receiving waters. Dispersion and decay of pollutants in the water environment. Water quality standards and objectives.
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, laboratory demonstrations, field trip.
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.
Credit Points: 8 **Contact Hours:** 2 per week

CEP215 ADVANCED TRAFFIC ENGINEERING
Traffic flow theory and traffic management. Development of analytical and computer analysis routines for urban intersection design, their background and applications.
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.
Credit Points: 12 **Contact Hours:** 3 per week

CEP276 ADVANCED TREATMENT PROCESSES
The design of water and wastewater treatment plants, including conventional and alternative processes. Current practice and development. Operation of treatment plants.
Prerequisite: CEP174[R]
Credit Points: 8 **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.
Co-requisite: 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.
Credit Points: 8 **Contact Hours:** 2 per week

CEP310 URBAN TRANSPORTATION PLANNING

Transportation planning applications; road needs, urban transport, new developments, local area planning. Macro land use/transportation and micro urban transportation models; urban transportation zone selection and data needs; trip generation; model splits; survey techniques.
Credit Points: 8 **Contact Hours:** 2 per week

CEP361 DRAINAGE ENGINEERING

Drainage engineering of interest to municipal engineers, road and railway designers, irrigation and general civil engineers. Subject covers 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.
Credit Points: 8 **Contact Hours:** 2 per week

CEP998 PROJECT B

The student is required to investigate in depth an 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.
Credit Points: 20 **Contact Hours:** 5 per week

CEP999 PROJECT

The student is required to investigate in depth an 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 will be presented in a major formal report.
Credit Points: 36 **Contact Hours:** 4 per week

CET120 CIVIL SYSTEMS 1

Introduction to civil engineering applications of computers. Hardware and operating systems. Word processors, spread sheets and data bases as used in civil engineering offices. Introduction to high level languages.
Credit Points: 7 **Contact Hours:** 3 per week

CET135 ENGINEERING MECHANICS

Equilibrium of forces and moments, reactions, free body diagrams, truss analysis, shear force and bending moment diagrams.
Credit Points: 7 **Contact Hours:** 3 per week

CET180 CIVIL DRAFTING PRACTICE A

Short, practical exercises to cover the highest possible range of drafting experience commensurate with the first year students stage of development.
Co-requisite: MET120
Credit Points: 3 **Contact Hours:** 3 per week

CET190 CIVIL ENGINEERING MATERIALS

Properties of common ferrous and nonferrous metals and alloys, timber, plastics, bitumen and asphaltic concrete. Study of welding processes and defects, corrosion mechanisms and prevention and evaluative testing procedures. Quality control and selection of engineering materials.
Credit Points: 7 **Contact Hours:** 3 per week

CET195 CIVIL ENGINEERING 1

Civil engineering: the profession, organisation and work options. Measurement in civil engineering, maintenance of standards, role of NML and NATA. Technical writing, reports, letters, etc. Mathematical techniques applicable to relevant examples.
Credit Points: 7 **Contact Hours:** 3 per week

CET235 LABORATORY PRACTICE A

The type and role of laboratories in civil engineering. NATA registration and calibration requirements. Quality control and assurance, basic statistics. Basic measuring equipment and techniques; associated calculations. Presentation of data in reports. Laboratory work in materials and hydraulic engineering to demonstrate measuring techniques.
Co-requisites: CET365, CET435
Credit Points: 3 **Contact Hours:** 3 per week

CET255 STRUCTURAL MECHANICS

Stress, direct flexure, and shear in beams and shafts. Combined stress conditions. Deflections in beams and trusses.
Prerequisite: CET135[R]
Credit Points: 7 **Contact Hours:** 3 per week

CET286 CIVIL OFFICE PRACTICE

Preparation and layout of civil engineering drawings; design office procedures including methods of data manipulation, presentation and checking.
Prerequisite: MET120
Credit Points: 7 **Contact Hours:** 3 per week

CET287 CIVIL OFFICE PRACTICE A

Further experience in civil engineering design drafting/drawing, additional to that undertaken in CET286 Civil Office Practice.
Prerequisite: MET120 **Co-requisite:** CET286
Credit Points: 3 **Contact Hours:** 3 per week

CET306 FIELD PRACTICE 1A

Setting out, as-built surveys and drawings, photography and field sketching; field measurement and sampling in water, soils and materials; implications of field measurements on design and construction practice.
Prerequisites: SVT306[R], CET365[R]
Co-requisites: CET775
Credit Points: 3 **Contact Hours:** 3 per week

CET365 HYDRAULIC ENGINEERING

Properties of fluids, simple hydrostatics, fundamental characteristics and equations of fluid flow, pipe and open channel flow, hydraulic measurements. Laboratory work on basic fluid behaviour and instrumentation.
Prerequisite: CET135[R]
Credit Points: 7 **Contact Hours:** 3 per week

CET387 CIVIL ENGINEERING DRAFTING A

Further experience in municipal engineering design drafting/drawings, additional to that undertaken in CET585 Civil Engineering Drafting.
Prerequisite: CET286[R]
Co-requisite: CET585
Credit Points: 3 **Contact Hours:** 3 per week

CET405 FIELD PRACTICE 2A

This subject will involve field visits and laboratory workshops on many aspects of civil engineering construction.
Credit Points: 3 **Contact Hours:** 3 per week

CET420 CIVIL SYSTEMS 2

Further study of civil engineering office applications of computing. File management, error recovery, net-

working, pre and post processing in a CAD environment. Software installation and data aequisition.
Prerequisite: CET120[R]
Credit Points: 3 **Contact Hours:** 3 per week

CET435 CONCRETE PRACTICE
Raw materials, cements, aggregates, additives and admixtures. Properties of plastic and hardened concrete. Testing and quality control. Simple mix design, concrete manufacturing and transportation, construction procedures.
Credit Points: 7 **Contact Hours:** 3 per week

CET495 PROJECT A
Undertake a substantial project in the student's chosen field. Involves the investigation of the topic, performance of the tests, design calculations, drawings, etc. and submission of a comprehensive report.
Prerequisites: Subject must be in student's final year
Credit Points: 3 **Contact Hours:** 3 per week

CET565 ROAD & DRAINAGE ENGINEERING
Elements of road construction and maintenance, road pavement types, design and construction. Road drainage principles, design and construction of urban and rural culverts, urban stormwater drainage systems.
Prerequisites: CET815[R], CET645[R], CET365[R]
Credit Points: 7 **Contact Hours:** 3 per week

CET585 CIVIL ENGINEERING DRAFTING
Preparation of municipal engineering drawings including roadworks and stormwater drainage. State and local authority standards. Projects involve varying amounts of design computations and at least one example will involve computer usage. Introduction to quantity take-off, bills of quantities, cost estimates and cross referencing between drawings, bills of quantities and specifications.
Prerequisite: CET286[R] **Co-requisite:** CET565
Credit Points: 7 **Contact Hours:** 3 per week

CET598 PROJECT 2
An individually designed program including designs, reports and investigations in the area of sanitary engineering.
Prerequisites: Student must have completed 72 credit points.
Credit Points: 21 **Contact Hours:** 9 per week

CET606 CONSTRUCTION MANAGEMENT
Construction planning, organisational structure, construction reporting, contract management and administration, human relations, plant hire.
Credit Points: 7 **Contact Hours:** 3 per week

CET645 SOIL MECHANICS
Identification and classification of soils; testing methods required. Compaction of soil, soil permability, effective and total stress, shear strength and compressibility. Introduction to retaining walls, bearing capacity, CBR testing and insitu sampling and testing.
Prerequisite: CET135[R]
Credit Points: 7 **Contact Hours:** 3 per week

CET703 CIVIL ENGINEERING PRACTICE 1
Current topics in a specified area of civil engineering practice at a level appropriate to the course and as approved by the Head of School. The content of this subject may be changed from semester to semester depending on demand and available staff.
Prerequisites: Student must have completed 72 credit points.
Credit Points: 7 **Contact Hours:** 3 per week

CET704 CIVIL CONSTRUCTION PRACTICE
Principles of temporary works design. Form work, false work and scaffolding. Shoring, de-watering, excavation and earthworks, plant; introduction to the Construction Safety Act and Regulations.
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.
Prerequisite: CET815[R]
Co-requisites: CET565, CET775
Credit Points: 7 **Contact Hours:** 3 per week

CET708 SPECIFICATIONS & ESTIMATES
General conditions of contract, arbitration, annexures, specifications, special provisions. Types of estimates. Mechanics of estimating, computer applications.
Credit Points: 7 **Contact Hours:** 3 per week

CET735 ADVANCED LABORATORY TESTING 1
Testing work to give experiences with a range of equipment and testing procedures. Includes tests in a number of selected laboratory areas.
Credit Points: 7 **Contact Hours:** 3 per week

CET756 BUILDING CONSTRUCTION PRACTICE
Practical aspects associated with reinforced, prestressed concrete (insitu and precast). Steel construction, aspects of fabrication and erection. Clay brick and concrete masonry construction including cladding. Overview of building regulations.
Prerequisite: CET190[R]
Credit Points: 7 **Contact Hours:** 3 per week

CET775 PUBLIC HEALTH ENGINEERING
Water supply and sewerage systems, water sources, demand, water and wastewater treatment, water quality, treatment plants, swimming pools, laboratory analysis and field visits.
Prerequisite: CET365[R]
Credit Points: 7 **Contact Hours:** 3 per week

CET776 EQUIPMENT OPERATION & MAINTENANCE
Principles and practice of the operation and maintenance of equipment in water and wastewater treatment plants. Overview of plant; motors, engines, pumps, compressors and generators; rotary and rectilinear scraping and raking mechanisms; chemical handling, mixing, dosing; safety and maintenance scheduling for specific equipment items.
Prerequisites: CET365[R], CHA140[R]
Credit Points: 7 **Contact Hours:** 3 per week

CET777 PROCESS OPERATION & CONTROL 1
Principles of unit processes of water and wastewater treatment, with particular reference to their operation. The methods of operational control of these processes.
Prerequisites: CET365[R], CET775[R], CHA140[R]
Credit Points: 7 **Contact Hours:** 3 per week

CET797 PROJECT 1

Undertake a substantial project in the student's chosen field. Involves the investigation of the topic, performance of tests, design calculations, drawings, etc. and submission of comprehensive report.
Prerequisites: Student must have completed 72 credit points.
Credit Points: 7 **Contact Hours:** 3 per week

CET802 CIVIL ENGINEERING PRACTICE 2

See CET703.
Prerequisites: Students must have completed 72 credit points.
Credit Points: 7 **Contact Hours:** 3 per week

CET815 ROAD LOCATION & DESIGN

Road location principles, road design and geometry including computer applications; subdivision and subdivision street design; introduction to traffic engineering; intersection design.
Credit Points: 7 **Contact Hours:** 3 per week

CET838 ADVANCED LABORATORY TESTING 2

Testing projects undertaken in specialist areas and presented as a series of major reports. Each report will be expected to include a discussion of the tests undertaken and the results obtained.
Credit Points: 7 **Contact Hours:** 3 per week

CET856 ADVANCED CONSTRUCTION TECHNIQUES

Builds on CET606. 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.
Prerequisite: CET606[R]
Credit Points: 7 **Contact Hours:** 3 per week

CET876 PLANT OPERATION & MAINTENANCE

Operation and maintenance requirements of water quality treatment plants; scheduling, labour control, workshop organisation, safety, training and performance monitoring.
Prerequisite: CET606[R] **Co-requisite:** CET776
Credit Points: 7 **Contact Hours:** 3 per week

CET877 PROCESS OPERATION & CONTROL 2

Extends CET777. Unit processes of water and wastewater treatment with particular reference to their operation. The methods of operational control of these processes.
Prerequisite: CET777[R]
Credit Points: 7 **Contact Hours:** 3 per week

CET888 STRUCTURAL DRAWING & DESIGN

Minor structural design and layout will be 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.
Prerequisites: MET120,CET286
Co-requisites: CET787, CET585, CET655
Credit Points: 7 **Contact Hours:** 3 per week

CET894 COMPUTATIONS A

Calculations involving aspects of civil and structural engineering. Computer aided design. Planimeters. Technical reports.
Co-requisite: SVT306
Credit Points: 3 **Contact Hours:** 3 per week

CHA111 LABORATORY TECHNIQUES

A course introducing safe and proficient procedures in the laboratory, and giving practice in the manipulation of common elementary laboratory apparatus, equipment and reagents. On completing the course the student should be able to handle, correctly and safely, all the basic pieces of laboratory equipment and be familiar with their main functions and limitations.
Credit Points: 8 **Contact Hours:** 3 per week

CHA145 INTRODUCTORY 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; 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.
Credit Points: 8 **Contact Hours:** 3 per week

CHA218 ANALYTICAL CHEMISTRY 1

A lecture and laboratory program covering fundamental theory and techniques of titrimetric and gravimetric analysis.
Prerequisite: CHA111
Credit Points: 8 **Contact Hours:** 3 per week

CHA219 QUALITATIVE ANALYSIS

This course considers 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 are also covered.
Prerequisite: CHA111
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; banding, 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.
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.
Prerequisite: CHA111
Credit Points: 8 **Contact Hours:** 3 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.
Prerequisite: CHA145
Credit Points: 8 **Contact Hours:** 3 per week

CHA270 PHYSICAL CHEMISTRY 1

The first part of an integrated syllabus of physical chemistry in the Associate Diploma. A study of the fundamental aspects of chemical energetics, solution chemistry and equilibria and practical applications thereof.
Prerequisite: CHA145
Credit Points: 8 **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.
Prerequisite: CHA218, CHA240
Co-requisite: CHA319
Credit Points: 8 **Contact Hours:** 4 per week

CHA319 ANALYTICAL CHEMISTRY 2

A course of lectures and practical work designed to develop further the basic titrimetric and gravimetric analysis principles introduced in CHA218. The practical program will feature the analysis of commercial materials with emphasis on sample dissolution techniques.
Prerequisite: CHA218
Credit Points: 6 **Contact Hours:** 3 per week

CHA320 CHEMICAL PROCESS PRINCIPLES 1

This course discusses chemical reactors (both homogeneous and heterogeneous), unit operations (transport and preparation of materials and separation of materials) and material and energy balances in chemical processes.
Prerequisite: CHA270 **Co-requisite:** CHA370
Credit Points: 8 **Contact Hours:** 3 per week

CHA350 ORGANIC CHEMISTRY 2

This subject 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 are discussed.
Prerequisite: CHA250
Credit Points: 8 **Contact Hours:** 3 per week

CHA368 INDUSTRIAL CHEMISTRY

This subject aims to develop an appreciation of the basic aspects of product and quality control, an understanding of the underlying fundamental chemistry and an overall concept of the chemical technology involved in, for example, the petroleum and petrochemical industry, the polymer, plastic 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 subject.
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 of the Associate Diploma. Covers the areas of chemical kinetics, surface chemistry and elementary electrochemistry.
Prerequisite: CHA270
Credit Points: 6 **Contact Hours:** 2 per week

CHA410 COMPUTERS IN CHEMISTRY

This course outlines the use of computers in various aspects of the chemical industry, both in laboratory and plant. The different approaches to laboratory automation are discussed and a detailed study of computer control in a selected industry undertaken. Field trips also are included.
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.
Credit Points: 4 **Contact Hours:** 2 per week

CHA520 CHEMICAL PROCESS PRINCIPLES 2

A lecture and laboratory course which deals with measurement systems, the principles of process control and the applications of process control in the chemical industry.
Prerequisite: CHA320
Credit Points: 8 **Contact Hours:** 3 per week

CHA550 ORGANIC CHEMISTRY 3

This subject gives students an appreciation of 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.
Prerequisite: CHA350
Credit Points: 8 **Contact Hours:** 3 per week

CHA580 FOOD CHEMISTRY 1

The basic chemical components of food, fats and oils, proteins, carbohydrates, vitamins and minerals; factors affecting quality such as texture, flavour and colour. Measurements of food quality. A major assignment related to the dairy industry is incorporated.
Prerequisites: CHA240, CHA250, CHA218
Co-requisite: CHA350
Credit Points: 8 **Contact Hours:** 3 per week

CHA610 INDUSTRIAL ANALYSIS

A course involving the use of both qualitative (semi-micro) and quantitative techniques in the analysis of commercially important materials, including ores, cement, fertiliser, fats, oils and sugar products.
Prerequisites: CHA318, CHA319
Credit Points: 8 **Contact Hours:** 3 per week

CHA644 PROCESS MEASUREMENT & MONITORING 1

A study of the physical and chemical measurements involved in: the analysis of raw and potable waters; and the determination of organic and microbiological pollution. Emphasis is placed on sampling and sample preservation laboratory techniques, interpretation of results and the significance of the measured parameters in the operation and control of water and wastewater treatment plants.
Prerequisites: CET365, CET775
Co-requisite: CHA140
Credit Points: 7 **Contact Hours:** 3 per week

CHA670 PHYSICAL CHEMISTRY 3

This subject forms the third part of the integrated syllabus of physical chemistry of the Associate Diploma and covers the areas of applied electrochemistry, corrosion, distillation and extraction. Practical applications are emphasised.
Prerequisite: CHA370
Credit Points: 8 **Contact Hours:** 3 per week

CHA680 FOOD CHEMISTRY 2

A more advanced subject covering the chemistry and principal methods of food processing and preparation. A further major assignment appropriate to the dairy industry is incorporated.
Prerequisite: CHA580
Credit Points: 8 **Contact Hours:** 3 per week

CHA744 PROCESS MEASUREMENT & MONITORING 2

The physical and chemical measurements involved in: the determination of inorganic and other selected pollutants; the analysis of sewage and other sludges; and the testing of sewage effluents together with an introduction to specialised analytical techniques including atomic absorption spectrophotometry, chromatography and polarography. Emphasis is placed on sampling and sample preservation laboratory techniques, interpretation of results and the significance of the measured parameters in the operation and control of water and wastewater treatment plants.
Prerequisite: CHA644
Credit Points: 7 **Contact Hours:** 3 per week

CHA844 TRADE WASTE CONTROL

A study of industrial wastes with respect to typical waste characteristics, effects on natural waters, sewers and treatment plants, methods of inhouse treatment and their achievable effluent levels, monitoring techniques, legislation and charging procedures.
Prerequisites: CET777, CHA744
Credit Points: 7 **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, properties of matter, chemical thermodynamics, enthalphy, heat of reactions, organic chemistry.
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. The subject is offered for engineering students without sound achievement in chemistry and serves as the foundation for CHB344 and CHB346.
Credit Points: 2 **Contact Hours:** 1 per week

CHB142 CHEMISTRY 1

Inorganic chemistry: modern atomic theory, electronic configuration of the elements, covalent bonding of simple molecules: Organic chemistry: reactions of the carbon-hydrogen bond, carbon-halogen bond, the carbon-carbon double bond, carbon-carbon triple bond and aromatic substitutions: Physical chemistry: chemical equilibrium; equilibria in electrolyte solutions, properties of liquids, phase rule, liquid mixtures and colligative properties. Incompatible with CHB182
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, Schroinger equation, translational, rotational and vibrational motions; atomic spectra and structure, quantum numbers and orbitals, electron spin.
Prerequisites: 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.
Prerequisite: Year 12 Chemistry – Sound achievement.
Credit Points: 12 **Contact Hours:** 5 per week

CHB183 CHEMISTRY 1B

Fundamental studies in two of the three sub-discipline areas of chemistry – inorganic chemistry and organic chemistry; the periodic table; acid, 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.
Prerequisites: Sound achievement in Senior Chemistry or Co-requisite CHB001
Credit Points: 12 **Contact Hours:** 6 per week

CHB242 CHEMISTRY 2

Inorganic Chemistry: classification and properties of the elements, shapes of molecules, bonding in solids and coordination chemistry: Organic chemistry: the reactions of alcohols, phenols and ethers, amino compounds, aldehydes, ketones, carbohydrates, the acyl group (carboxylic acids and derivatives), amino acids and proteins, chemical structure, biological activity, and colour in organic compounds: Physical chemistry: the gas laws for ideal and non-ideal systems, first law of thermodynamics and thermochemistry, galvanic cells including applications to the determination of pH and potentiometric titrations, and colloids. (**Note:** This subject is not compatible with CHB281; credit may not be retained for more than one of these subjects.)
Prerequisite: CHB142
Credit Points: 12 **Contact Hours:** 6 per week

CHB253 CHEMISTRY 2B

This subject builds on the fundamental concepts studied in Chemistry 1B and develops a knowledge of organic mechanism as a tool for understanding the nature of organic chemical change; the use of modern spectroscopic techniques as an aid to structure elucidation.
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; bio-molecules and polymers, carbohydrates, lipids, proteins, enzymes.
Credit Points: 12 **Contact Hours:** 5 per week

CHB282 CHEMISTRY 2

Atomic structure; chemical bonding; thermodynamics; 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.
Prerequisite: CHB182
Credit Points: 12 **Contact Hours:** 5 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.
Prerequisites: MAB212, PHB122, CHB173 and CHB183
Credit Points: 12 **Contact Hours:** 5 per week

CHB292 APPLIED SCIENCE FOR DESIGNERS 2

Chemistry for environmental design; basic chemical properties of commonly occurring materials, natural and artificial; common chemical processes in buildings and artifacts.
Credit Poiuts: 4 **Contact Hours:** 2 per week

CHB313 ANALYTICAL CHEMISTRY 3

Analytical techniques including volumetric glassware, basic laboratory equipment, laboratory balances (top-pan and analytical), sampling, sample dissolution principles; neutralimetry; redoximetry; precipitimetry; complexim etry; gravimetry; treatment of results; instrumental methods.
Prerequisites: CHB283, CHB253 or CHB282
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 actimides; chemistry of selected non-metals; chemistry of precious metals.
Prerequisite: CHB283 or CHB282
Credit Points: 12 **Contact Hours:** 5 per week

CHB344 ENGINEERING CHEMISTRY M

Specialised chemistry subject designed for mechanical engineers includes such topics as fuels and their combustion; the chemistry of lubricants and lubrication; corrosion and its prevention and water treatment processes.
Prerequisite: CHB002 or equivalent
Credit Points: 4 **Contact Hours:** 2 per week

CHB346 ENGINEERING CHEMISTRY C

Specialised chemistry subject designed for civil engineers and includes such topics as PH control; the chemistry of materials; polymers and composites; corrosion and its prevention.
Prerequisite: 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, a-halogens, ring and steric strain. Sampling; nuclear magnetic resonance – basic principles, classification of nuclei, the shielding constant. 1H spectra, areas and integrals, chemical shifts and coupling. Sampling.
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.
Prerequisites: CHB183, CHB283
Credit Points: 12 **Contact Hours:** 5 per week

CHB372 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.
Prerequisite: CHB282 or CHB283
Credit Poiuts: 12 **Contact Hours:** 5 per week

CHB373 PHYSICAL CHEMISTRY 3A

Equilibrium electrochemistry; applied phase chemistry; applied thermodynamics – 2nd and 3rd laws; kinetics – complex reactions, mechanisms; spectroscopy – interaction of radiation with matter.
Prerequisite: CHB283 or CHB282
Credit Points: 12 **Contact Hours:** 5 per week

CHB382 CHEMISTRY 3

Biochemical relevance of pH; instrumental analytical techniques used in the pathology laboratory; the co-ordination chemistry of biological systems; dyes and stains; the thermodynamics and kinetics of biological systems.
Prerequisites: CHB142, CHB242
Credit Points: 4 **Contact Hours:** 2 per week

CHB411 ENVIRONMENTAL ANALYTICAL CHEMISTRY

A course of lectures and practical work for students of biological sciences dealing with the principles and application of sampling, and electrometric/spectroscopic/flame separation methods to the analysis of materials from the biosphere. (**Note:** This subject is not compatible with a major in Chemistry or CHB310.)
Prerequisites: CHB102, CHB201, CHB202
Credit Points: 8 **Contact Hours:** 4 per week

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; and solid-liquid separation operations; solid-fluid contacting operations; principles of fluid mechanics and their applications in storage, transport, mixing and dispersing operations; liquid-liquid extraction operations.
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 chromatography and high-performance liquid chromatography in the separation and analysis of a variety of organic compounds.
Prerequisite: CHB372 or CHB352
Credit Points: 12 **Contact Hours:** 5 per week

CHB473 PHYSICAL CHEMISTRY 4

Thermodynamics; surface chemistry; dynamic electrochemistry; chemical kinetics.
Prerequisite: CHB373 or CHB372
Credit Points: 12 **Contact Hours:** 5 per week

CHB510 INSTRUMENTAL ANALYSIS

Scope of trace analysis, including method reliability, accuracy, precision, sensitivity and selectivity. Atomic absorption and atomic emission – theory and instrumentation. Determination of organic structure by mass spectrometry. (**Note:** This subject is not compatible with CHB641; credit may not be retained for both.)
Prerequisites: CHB310, CHB340, CHB440, CHB351
Credit Points: 8 **Contact Hours:** 4 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.
Prerequisites: CHB313, CHB372 and CHB453
Credit Points: 12 **Contact Hours:** 5 per week

CHB523 CHEMICAL TECHNOLOGY 5

Principles of heat transfer and their applications in heat exchange and evaporation operations; distillation; principles of mass transfer and their applications in gas absorption psychrometric, drying and membrane operations; sources of chemicals, petrochemical processes, hydrogen economy; chemical engineering process analysis and its applications to selected industrial processes; topics include: equilibrium thermodynamics and kinetics, ideal reactors, reactor design.
Prerequisites: CHB473, CHB423
Credit Points: 12 **Contact Hours:** 5 per week

CHB527 CHEMICAL TECHNOLOGY 5

Chemical engineering process analysis and its applications to selected industrial processes. An introductory study of basic economic principles and their applications to the chemical process industries. An introduction to process plant design.
Prerequisites: CHB327, CHB427, CHB470
Credit Points: 8 **Contact Hours:** 4 per week

CHB530 INORGANIC CHEMISTRY 5

A course of lectures and practical work dealing with organometallic chemistry; lanthanides and nuclear chemistry; inorganic rings and cages including the chemistry polyanions and metal clusters.
Prerequisite: CHB430
Credit Pnints: 8 **Contact Hours:** 3 per week

CHB533 INORGANIC CHEMISTRY 5

Chemistry of selected metalloids; introduction to 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.
Prerequisite: CHB333
Credit Points: 12 **Contact Hours:** 5 per week

CHB550 ORGANIC CHEMISTRY 5

A course in advanced organic chemistry which emphasises the solution of synthetic problems both in the laboratory and on the industrial scale. Topics may include choice of starting materials, major carbon-carbon bond forming procedures, selectivity and control, design of industrial organic processes, significance of reaction mechanism and structive activity relationships. (**Note:** This subject is not compatible with CHB551; credit may not be retained for both.)
Prerequisite: CHB350, CHB450
Credit Points: 8 **Contact Hours:** 4 per week

CHB551 ORGANIC CHEMISTRY 5C

A course in advanced organic chemistry which emphasises the solution of synthetic problems. Topics may include choice of starting materials, major carbon-carbon bond forming procedures, selectivity and control, significance of reaction mechanism, and structure activity relationships. (**Note:** This subject is not compatible with CHB550; credit may not be retained for both.)
Prerequisite: CHB451
Credit Points: 8 **Contact Hours:** 3 per week

CHB570 PHYSICAL CHEMISTRY 5

Solid-liquid equilibria, ternary eutectics and industrial phase chemistry; equilibrium and dynamic electrochemistry and corrosion; kinetics of chain reactions. (**Note:** This subject is not compatible with CHB571; credit may not be retained for both.)
Prerequisites: CHB370, CHB470
Credit Points: 8 **Contact Hours:** 4 per week

CHB571 PHYSICAL CHEMISTRY 5C

Solid-liquid equilibria, ternary eutectics and industrial phase chemistry; equilibrium and dynamic electrochemistry; kinetics of chain reactions. (**Note:** This subject is not compatible with CHB570; credit may not be retained for both.)
Prerequisites: CHB371, CHB471
Credit Points: 8 **Contact Hours:** 3 per week

CHB573 PHYSICAL CHEMISTRY 5

Kinetics; colloid chemistry; phase equilibria; quantum mechanics; statistical mechanics.
Prerequisite: CHB473
Credit Points: 12 **Contact Hours:** 5 per week

CHB590 MATERIALS SCIENCE

The nature of solids; crystalline materials; metals; non-metallic materials and organic polymers.
Prerequisites: CHB370 or CHB371, CHB470 or CHB471
Credit Points: 8 **Contact Hours:** 3 per week

CHB600 PROJECT

A laboratory-oriented investigation extending over one semester full-time or two semesters part-time under the supervision of a member of staff. The project will require a literature search, further study, continuing discussion with the project supervisor and a laboratory research program. The literature search, study and discussion component of CHB600 and CHB601 is aimed at developing student competence in search techniques and experience in experimental design. The laboratory program aims to develop student competence in the use of experimental techniques as a basis for problem solving. Completion of the project requires the submission of a written technical report.
Prerequisites: for CH32 – CHB510 or CHB527 and two of CHB530, CHB550 and CHB570 or, for SC30 – two of CHB530, CHB551 and CHB571
Credit Points: 20 **Contact Hours:** 10 per week

CHB603 PROJECT

The material content of this subject is a variety of chemical problems reflecting teaching, research and consultancy interests of the staff.
Prerequisites: One of CHB573, CHB553 or CHB533 + CHB513 or CHB523
Credit Points: 12

CHB610 ADVANCED ANALYSIS

Use of computers for on-line data acquisition and instrument control. Microprocessor controlled instrumentation and dedicated data systems. Advanced instrumental techniques, with emphasis on trace techniques and associated sample-handling requirements. Techniques included for discussion will be electroanalytical techniques, nondestructive techniques and thermal methods.
Prerequisite: CHB510
Credit Points: 4 **Contact Hours:** 2 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 convertors, I/O methods including polling, interrupt techniques, direct memory access.
Prerequisite: CHB513
Credit Points: 12 **Contact Hours:** 5 per week

CHB618 LABORATORY AUTOMATION

Current approaches to the use of computer facilities in commercial laboratories will be emphasised in the lecture course. Discussion will centre on planning to achieve an integrated network. Instrument types to include analogue output, BCD and serial digital interfaces (RS232C, IEEE, etc.). Incorporation of microprocessor controlled instruments and those instruments with dedicated data systems. Report generation and data communication systems. Polling (programmed I/O) and interrupt techniques.
Prerequisite: PHB504
Credit Points: 8 **Contact Hours:** 3 per week

CHB623 CHEMICAL TECHNOLOGY 6

Economic concepts, engineering costing, profitability evaluation, investment decision making, process economic appraisal using network analysis, optimisation using linear, non-linear, and dynamic programming. Introduction to steady-state process analysis, simulation and design, with the aid of ASPEN software system; modelling process flowsheets and chemical reactors; case study problem solving using ASPEN.
Prerequisite: CHB523
Credit Points: 12 **Contact Hours:** 5 per week

CHB627 CHEMICAL TECHNOLOGY 6

Measurement and control in large-scale chemical processing. An introduction to process modelling including strategies of process operations, optimisation methods, linear programming and dynamic programming.
Prerequisites: CHB327, CHB427
Credit Points: 4 **Contact Hours:** 2 per week

CHB628 ENERGY TECHNOLOGY

A study of energy conversion systems and energy economics including choice of fuels, distribution costs and net energy analysis.
Prerequisite: CHB527 **Co-requisite:** CHB627
Credit Points: 6 **Contact Hours:** 3 per week

CHB631 ADVANCED INORGANIC CHEMISTRY

Selected metals: the solution and solid state chemistry of metals such as titanium, zirconium, hafnium, chromium, molybdenum and tungsten with emphasis on structures, bonding and reaction methanisms. Precious metals: the 'platinum group', silver and gold; high purity chemicals. Redox systems: hydrogen peroxide and related peroxo-compounds; dithionates and the oxosulphur system; sodium borohydride and other complex hydrides.
Prerequisite: CHB530
Credit Poiuts: 8 **Contact Hours:** 3 per week

CHB640 CHEMISTRY 6

Celloid chemistry and rheology; Fourier transform, laser and time resolved spectroscopy; interpretative '3C NMR spectroscopy; free radical and photo-

chemistry and the organic chemistry of sulphur and phosphorus compounds. (**Note:** This subject is not compatible with CHB641, CHB671; credit may not be retained for more than one of these subjects.)
Prerequisites: CHB450, CHB470, CHB550, CHB570
Credit Points: 4 **Contact Hours:** 2 per week

CHB641 ADVANCED SPECTROSCOPY

Atomic absorption and emission spectroscopy. Electron spin resonance spectroscopy. Lasers and laser spectroscopy. Mass spectrometry, particularly GC-MS. Fourier transform spectroscopy, particularly '3C and multi-nuclei NMR. The role of dedicated computers in these techniques will be emphasised. (**Note:** This subject is not compatible with CHB510, CHB640; credit may not be retained for more than one of these subjects.)
Prerequisite: CHB340
Credit Points: 8 **Contact Hours:** 3 per week

CHB643 APPLIED SPECTROSCOPY

Nuclear magnetic resonance spectroscopy; vibrational spectroscopy; remote spectroscopy; Uv/vis and fluorescence spectroscopies.
Prerequisites: CHB373 or CHB372 + (CHB353 or CHB352
Credit Points: 12 **Contact Hours:** 5 per week

CHB651 BIOLOGICAL CHEMISTRY

Phosphoric acids and derivatives; addition and substitution reactions, reactivity relative to carbon esters. Condensation reactions, thiol esters, fatty acid synthesis. Hydration/ dehydration, terpene biosynthesis. Biological oxidation, heterocyclic coenzymes. Bioinorganic systems investigation – metal ion probes, inhibitor studies, model compounds. Hydrolytic enzymes. Biological redox systems with transition metal ions.
Prerequisite: CHB551
Credit Points: 8 **Contact Hours:** 3 per week

CHB653 APPLIED BIOLOGICAL CHEMISTRY

Overview of molecular cell biology and chemistry; basic physical biochemistry of proteins and cells; chemistry of amino acids, peptides and proteins; conformation, structure, reactivity of peptides, proteins and enzymes; protein engineering; enzyme reaction mechanisms; bioinorganic chemistry including structural, spectroscopic, and functional properties of metallo-proteins; catalytic roles in metallo-biochemistry; bioenergetics, biosynthesis and biotransformation.
Prerequisite: CHB553
Credit Points: 12 **Contact Hours:** 5 per week

CHB660 INDUSTRIAL VISITS

Visits to selected industries, for example, petroleum, industrial chemicals, sugar.
Prerequisite: CHB501
Credit Points: 2 **Contact Hours:** 1 per week

CHB663 ENVIRONMENTAL CHEMISTRY

Toxicology; water quality and its assessment; modeling reactions in water bodies; air quality; criteria pollutants and health effects; indoor pollutants; monitoring; dispersion of pollutants; control techniques.
Prerequisite: CHB373 or CHB372
Credit Points: 12 **Contact Hours:** 5 per week

CHB671 SOLIDS & SURFACES

Colloid chemistry and rheology. The surface chemistry of metals, polymers and other solid materials. Surface analysis techniques including FTIR, XPS, SAM and ESCA. (**Note:** CHB671 is not compatible with CHB640; credit may not be retained for both.)
Prerequisite: CHB571
Credit Points: 8 **Contact Hours:** 3 per week

CHB690 ADVANCED MATERIALS SCIENCE

Advanced materials analysis; fibre reinforced composite materials; advanced alloys; inorganic polymers; applied polymer science.
Prerequisite: CHB590
Credit Points: 8 **Contact Hours:** 3 per week

CHB691 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 and nitrogen in the atmosphere; organic pollutants and photochemical smog; particulate matter. Water and atmospheric monitoring.
Prerequisites: CHB551, CHB571
Credit Points: 8 **Contact Hours:** 3 per week

CHB693 MATERIALS CHEMISTRY

Properties of materials; metals and alloys; metallic corrosion; crystalline materials; cements, ceramics and glasses; polymers.
Prerequisite: CHB473
Credit Points: 12 **Contact Hours:** 5 per week

CHB700 PROJECT

All students undertaking Honours are required to select and undertake, in consultation with a supervisor, a substantial project in an appropriate area. Each project will be assessed on the basis of an extensive written report and an oral presentation.
Credit Points: 40

CHB780 ADVANCED TOPICS IN CHEMISTRY 1

CHB880 ADVANCED TOPICS IN CHEMISTRY 2

A selection of advanced topics in the areas of physical, organic and inorganic chemistry. The topics offered will reflect the expertise of the academic staff as well as the needs of the students. Both subjects will be assessed at the end of the year.
Credit Points: 12 **Contact Hours:** 6 per week

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; bioreactors; and scale-up. Other topics are selected from animal cell culture, protein bioltechnology, downstream processing and bio-process economics.
Credit Points: 12 **Contact Hours:** 5 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, electrochemical separation and new bio-separation techniques. Instruction includes case studies, and Aspen bio-process simulation.
Credit Points: 12 **Contact Hours:** 5 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 and nitrogen in the atmosphere; organic pollutants and photochemical smog; particulate matter. Water and atmospheric monitoring.
Prerequisites: CHB551, CHB571
Credit Points: 8 **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.
Credit Points: 6 **Contact Hours:** 3 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; principles of refrigeration; air-conditioning systems, composition, cost, application, construction and installation; heating, fuel types, efficiency, capital and annual costs; effect of building ordinances.
Co-requisite: 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;
Credit Points: 4 **Contact Hours:** 2 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.
Co-requisite: CNB151
Credit Points: 4 **Contact Hours:** 2 per week

CNB104 MATERIAL SCIENCE 2

Physical and chemical properties of materials and their affect on construction and structural qualities; laboratory and field testing of bricks, mortar, brickwork, concrete, timber, steel; protection of material against corrosion and fire.
Credit Points: 4 **Contact Hours:** 2 per week

CNB131 MEASUREMENT OF CONSTRUCTION IA

Subject description as for CNB005.
Credit Points: 6 **Contact Hours:** 3 per week

CNB143 STRUCTURES 1

Equilibrium of forces; shear forces and diagram, bending moments and diagram; loading on structures and loading code; truss analysis and force diagram; stress and strain, tension and compression members; bending theory, design of timber beams, columns and connections; design of steel beams and columns; introduction to indeterminate structures.
Credit Points: 4 **Contact Hours:** 2 per week

CNB144 STRUCTURES 2

See CNB143
Prerequisite: CNB143
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 effect on building construction.
Credit Points: 12 **Contact Hours:** 6 per week

CNB154 CONSTRUCTION 2

Continuation of CNB151; properties of materials, and behaviour in manufacturing and construction, affect on form and structure; workshop and studio working details of building components, coordination of building elements.
Prerequisite: CNB151
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.
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. Draught-

ing: preparation of typical construction details and drawings.
Prerequisite: BGB161
Credit Points: 9 **Contact Hours:** 3.5 per week

CNB164 BUILDING SERVICES 1A

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.
Credit Points: 6 **Contact Hours:** 2.5 per week

CNB166 URBAN ECONOMICS

Economic processes and spatial context of the city; differentiation of competing land use; location decisions in the urban market; economic forces behind urbanisation; intra-urban location; market failures, externalities and government involvement; transport in the urban environment; cost/accessibility; urban management. Economics of the Australian construction industry.
Credit Points: 4 **Contact Hours:** 2 per week

CNB172 CONSTRUCTION 2

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.
Credit Points: 8 **Contact Hours:** 4 per week

CNB243 LAW 1 – 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.
Co-requisite: 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.
Prerequisites: CNB151, CNB154
Co-requisite: 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 excavator, concreter, bricklayer, blocklayer in simple basement, underpinning, pier and beam, RC frame and suspended slab; taking off and billing in the trades asphalter, built-up roofing, demolisher, mason, structural steel and precast concrete.
Prerequisites: CNB253, CNB245,
Co-requisite: CNB254
Credit Points: 8 **Contact Hours:** 4 per week

CNB247 MATERIAL SCIENCE 3

Introduction to 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.
Prerequisites: CNB103, CNB104
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.
Prerequisites: CNB154, CNB103, CNB104
Credit Points: 10 **Contact Hours:** 5 per week

CNB254 CONSTRUCTION 4

An extension of CNB253, dealing with multi-storey residential commercial buildings.
Prerequisite: CNB253
Credit Points: 12 **Contact Hours:** 6 per week

CNB257 STRUCTURES 3

Analysis of indeterminate structures; frame analysis, moment distribution; design of steel connections and structures; concrete columns and walls; composite beams; theory of prestressed concrete, brickwork and concrete masonry design; design of retaining walls, substructures and foundations; computers in structural design.
Prerequisites: CNB103, CNB104, CNB143, CNB144
Credit Points: 4 **Contact Hours:** 2 per week

CNB258 STRUCTURES 4

Continuation of CNB257
Credit Points: 4 **Contact Hours:** 2 per week

CNB261 BUILDING STUDIES 3

Study of 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. Draughting: 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.
Prerequisite: CNB162
Credit Points: 8 **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.
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 of valuation profession. Factors influencing accuracy of valuations. The comparative approach. Valuations of vacant land and residential property. Valuation inspection and reports. Practical valuation assignments. Summation.
Credit Points: 8 **Contact Hours:** 3 per week

CNB268 VALUATION 2
See CNB263.
Prerequisite: CNB263
Credit Points: 8 **Contact Hours:** 3 per week

CNB301 PM1 – ADVANCED CONSTRUCTION METHODS
Construction and site management problems encountered by a project manager; case studies having unusual construction problems or techniques; including site planning and organisation for small, medium and large projects; material handling and site equipment selection.
Prerequisite: CNB254
Credit Points: 4 **Contact Hours:** 2 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.
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.
Credit Points: 3 **Contact Hours:** 1.5 per week

CNB343 ECONOMICS OF THE CONSTRUCTION INDUSTRY
Branches of 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 effects of time delays, etc.; finance industries, types and use of finance, use of gearing, risk considerations, cash flow; failure of developer and builder firms.
Credit Points: 4 **Contact Hours:** 2 per week

CNB345 HYGIENE & SANITATION
Subject description as for CNB164.
Credit Points: 6 **Contact Hours:** 3 per week

CNB362 PROPERTY MARKETING
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.
Credit Points: 7 **Contact Hours:** 3 per week

CNB363 VALUATION 3
Principles and practice of cost approach, valuation of improvements, limitations of cost approach. Investment approach, basic capitalisation and cash flow techniques. Examination of assumptions. Practical applications of investment approach to suburban and CBD properties.
Prerequisite: CNB268
Credit Points: 8 **Contact Hours:** 3 per week

CNB364 VALUATION 4
See CNB363.
Prerequisite: CNB363
Credit Points: 8 **Contact Hours:** 3 per week

CNB367 REAL ESTATE ACCOUNTING 1
Principal issues in 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 determination, development costs.
Credit Points: 4 **Contact Hours:** 2 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.
Prerequisite: BGB367
Credit Points: 7 **Contact Hours:** 3 per week

CNB401 BUILDING ECONOMICS & COST PLANNING
Concept of cost control building outputs ad costs; comparison of cost planning and approximate estimating; Cost implication 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; cost data; progress payments and final accounts.
Prerequisites: 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; types of tenders and contracts; controlling incoming work, securing contracts.
Co-requisite: 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.
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 and other miscellaneous gear; crane, hoist and other relevant code; responsibilities and certification of site operatives; safety problems in erection, demolition and excavation work; accident investigation, analysis and preventive techniques; frequency and severity rates and training, management responsibilities.
Co-requisite: CNB254
Credit Points: 4 **Contact Hours:** 2 per week

CNB406 BUILDING FINANCIAL MANAGEMENT 2

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.
Prerequisites: ACB281, CNB403
Credit Points: 4 **Contact Hours:** 2 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; remedies for breach of contract; major provisions in Australian Standard Forms of Building Contract.
Credit Points: 6 **Contact Hours:** 1 per week

CNB442 VALUATION & DILAPIDATION

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.
Credit Points: 4 in Semester 1, 2 in Semester 2
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.
Co-requisite: 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.
Prerequisite: 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.
Prerequisites: CNB006, CNB245
Co-requisite: 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; use of computer in measurement of non-traditional contractual systems; specification and preamble development.
Credit Points: 4 **Contact Hours:** 2 per week

CNB452 COMPUTER SOFTWARE APPLICATIONS 2

Preparation of 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; and progress payments and cash flow forecasts.
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, concreter, piling systems, complex structural systems in suspended slabs and walls.
Prerequisite: CNB010
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.
Prerequisite: CNB345
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 analysis, valuation procedures and inspections. Practical valuation assignments.
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.
Credit Points: 8 **Contact Hours:** 3 per week

CNB466 PROPERTY INVESTMENT ANALYSIS 2

See CNB465.
Credit Points: 8 **Contact Hours:** 3 per week

CNB470 VALUATION 6 – RURAL

See CNB464.
Prerequisite: CNB464
Credit Points: 8 **Contact Hours:** 3 per week

CNB471 LAW 7 – PROPERTY PRACTICE LAW

The 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.
Prerequisite: CNB342
Credit Points: 6 **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.
Prerequisite: CNB368
Credit Points: 3 **Contact Hours:** 1.5 per week

CNB520 SPECIFICATION

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.
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.
Prerequisites: CNB013, CNB443
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.
Credit Points: 5 **Contact Hours:** 2.5 per week

CNB529 PM2 – QUANTITATIVE TECHNIQUES

Review of statistical methods; data recording and presentation technique; the weighted index; probability and expected value; frequency and probability distribution; the normal distribution, control charts; regression and multiple regression; work study technique; value analysis in building design and production; operation research: linear programming, graphical, simplex, transportation and assignment methods; dynamic programming; decision making under conditions of certainty and uncertainty; decision trees.
Prerequisites: CNB403, CNB404
Credit Points: 5 **Contact Hours:** 2.5 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.
Prerequisites: CNB009, CNB010, CNB246, CNB446
Credit Points: 5 **Contact Hours:** 2.5 per week

CNB543 LAW 4 – TORTS & ARBITRATION

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 or umpire; conduct of an arbitration; powers and duties of an arbitrator; rules of evidence; validity of publication and enforcement of an award; costs.
Prerequisite: CNB440
Credit Points: 3 **Contact Hours:** 1.5 per week

CNB547 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.
Prerequisite: CNB254
Credit Points: 5 **Contact Hours:** 2.5 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.
Prerequisite: CNB547
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; control and forecasting; equipment policy, equipment economics, maintenance management; contract administration, processing payments, negotiating extensions and prolongation claims, rise and fall, prescribed payments.
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 the client; professional indemnity; professional image and status; office management and procedures.
Credit Points: 2 **Contact Hours:** 1 per week

CNB561 PROPERTY MAINTENANCE

Technological, legal and financial factors in property maintenance, including taxation issues. It encompasses 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.
Prerequisite: CNB164
Credit Points: 8 **Contact Hours:** 3 per week

CNB563 VALUATION – ADVANCED 1

Capital taxation as it affects property transactions. Valuations for development land tax, capital transfer tax and taxation of capital gains. Valuations for statutory rating purposes under relevant legislation. Valuations for compulsory acquisition. Assessment of compensation resulting from acquisition, resumption and damage. Evidence, the expert witness and professional liability.
Prerequisites: CNB363, CNB364
Credit Points: 8 **Contact Hours:** 3 per week

CNB564 VALUATION – ADVANCED 2

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.
Credit Points: 8 **Contact Hours:** 3 per week

CNB565 TIME MANAGEMENT

Bar chart, critical path networks – arrow and precedence diagrams. Updating, control and reporting techniques. Line of balance, production planning. Resource management.
Prerequisite: BGB161
Credit Points: 8 **Contact Hours:** 3 per week

CNB567 REAL ESTATE PRACTICE 1

Management concepts applied to real estate, a business plan, office administration, staff recruitment and training, trust accounts, functions of composite real estate practice, real estate software packages.
Credit Points: 4 **Contact Hours:** 2 per week

CNB568 REAL ESTATE PRACTICE 2

See BGB567.
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.
Prerequisite: CNB144 **Co-requisite:** CNB253
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.
Credit Point: 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 construction payments, monthly reports, coordination meetings; financing projects and cash flow.
Credit Points: 4 **Contact Hours:** 2 per week

CNB624 PM7 – BUILDING DEVELOPMENT TECHNIQUES 2

See CNB623.
Credit Points: 4 **Contact Hours:** 2 per week

CNB626 LAND DEVELOPMENT STUDIES

Subject description as for CNB606.
Prerequisites: CNB663, LPB441, LPB444
Credit Points: 4 **Contact Hours:** 2 per week

CNB642 APPLIED COMPUTER TECHNIQUES

Evaluation of a range of commercial computer programs designed for the development and construction industry.
Prerequisite: CNB548
Credit Points: 6 **Contact Hours:** 3 per week

CNB643 LAW 5 – COMMERCIAL LAW

An introduction to 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.

Credit Points: 3 **Contact Hours:** 1.5 per week

CNB647 COST PLANNING & 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, effect of taxation and insurance.

Prerequisites: CNB005, CNB006, CNB009, CNB010, CNB446, CNB461, CNB462, CNB524, CNB540

Credit Points: 4 **Contact Hours:** 2 per week

CNB648 COST PLANNING & CONTROL 2

Continuation of CNB647.

Credit Points: 6 **Contact Hours:** 3 per week

CNB653 POST CONTRACT SERVICES 2

Continuation of 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.

Prerequisite: CNB341

Credit Points: 18 **Contact Hours:** 4.5 per week

CNB661 ELECTIVE RESEARCH PROJECT 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 may either select a research subject, test its workability, develop working procedures, prepare an outline for the study, draft the preliminary section and, after a series of critiques, present a bibliographic report, or carry out 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.

Credit Points: 8 **Contact Hours:** 4 per week

CNB662 ELECTIVE RESEARCH PROJECT 2

See CNB661

Credit Points: 8 **Contact Hours:** 4 per week

CNB663 PROJECT DEVELOPMENT PROCESS 1

An overview of the project development process from inception to occupancy as a prelude to detailed study of discrete parts of the process. Subject description as for CNB623/4.

Credit Points: 5 **Contact Hours:** 2 per week

CNB664 PROJECT DEVELOPMENT PROCESS 2

See CNB663

Credit Points: 5 **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.

Credit Points: 8 **Contact Hours:** 3 per week

CNB666 PROPERTY MANAGEMENT 2

See CNB665.

Credit Points: 8 **Contact Hours:** 3 per week

CNB667 APPLIED COMPUTER TECHNIQUES

The subject is designed to give students hands-on experience and to demonstrate contemporary commercial software. On completion of the subject, students should be able to evaluate a range of commercial and non-commercial computer programs designed for the property development and construction industry. It covers accounting and cost control packages; feasibility studies, etc.; maintenance packages; and CPM, network analysis techniques.

Credit Points: 6 **Contact Hours:** 3 per week

CNB668 LAW 6 – VALUATION OF LAND

An understanding of the basis upon which valuations of land are made for the levy of rates and taxes and the assessment of compensation for compulsory acquisition. It encompasses review of land, fixtures, plant, improvements, tenure, interest of land. Valuation: market, capital, unimproved, annual and site values. General principles: assessment of value. Valuation methods: urban and rural lands. Goodwill and business disturbance. Compensation upon compulsory acquisition. Valuation appeals procedures.

Credit Points: 4 **Contact Hours:** 2 per week

CNN442 DISSERTATION

The dissertation may be of a research or investigative nature on any approved area related to project management. Suitable topics will be discussed and arranged with course members each year. Each student will be assigned a supervisor and will be examined by means of a dissertation by that supervisor and another member of staff prior to review by the external examiner.

Credit Points: 48 **Contact Hours:** 2 per week

CNP414 TIME MANAGEMENT 2

Development of an understanding and a high level of competence in the design of planning and control techniques for all stages of project management. The subject covers updating, control and reporting techniques using CP networks. Resource, time and cost analysis of CPM and PERT. Production planning and control using line of balance/flowline techniques. A critical examination of CPM and case studies on its misuse and abuse in contracts. Development of basic planning to produce detailed repetitive production planning of project components and elements, including cycle times and balancing. Planning for various project types and processes, including systematic analysis of methods, techniques and alternatives. Use

of multiple activity charts in planning and monitoring progress, and material handling time analyses in repetitive projects.
Credit Points: 6 **Contact Hours:** 2 per week

■ CNP417 DESIGN MANAGEMENT

The nature of design and a knowledge of all 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.
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.
Credit Points: 6 **Contact Hours:** 2 per week

■ CNP426 PROJECT DEVELOPMENT

Site selection/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.
Credit Points: 6 **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.
Credit Points: 6 **Contact Hours:** 2 per week

■ CNP430 CURRENT ISSUES

The subject is to be seen very much as an integrative study area. There are two main strands of integration: 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, buildability, value analysis, case studies, industrial relations, computer applications and selection, technology, information systems IT and AI, international project management, simulation exercises (Arousal, Bicep), recent developments in law, and englobal land development. It is expected that many of these topics will be covered by guest speakers from industry or presented in the form of seminars.
Credit Points: 9 **Contact Hours:** 3 per week

■ CNP431 PROJECT MANAGEMENT

Introduction to basic theory 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.
Credit Points: 6 per semester
Contact Hours: 2 per week

■ CNP433 PROJECT MANAGEMENT LAW

Introduction to the legal system. Law of tort. Contract law. Elements of contract. Contents of valid contract. The building contract process. Legal issues and problems associated with project management contracts. Arbitration. Property law. International law. Agency law. Local Government law. Statutory regulations. Industrial relations.
Credit Points: 6 **Contact Hours:** 2 per week

■ CNP434 TIME MANAGEMENT 1

The use of planning techniques for project control. The emphasis will be on practical assignments applicable to the proposed situation. Critical path method for planning. Precedence networks. Activity on the arrow. Time scaled networks. Bar charts. Resource loading and levelling. Line of balance. Introduction to computing packages.
Credit Points: 6 **Contact Hours:** 2 per week

■ CNP437 FIELD TRIP

An experiential field trip of 5 days duration in an adventure-style environment. The emphasis will be 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.
Credit Points: 12 **Contact Hours:** 5 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; cash flows models and partial interests; NPV's and IRR's 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.
Credit Points: 12 **Contact Hours:** 4 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 for the industry.
Credit Points: 12 **Contact Hours:** 2 per week

■ CNP667 APPLIED COMPUTING

The development and application of computer programs in the financial and physical management process of property development, management and investment.
Credit Points: 6 **Contact Hours:** 2 per week

■ COB018 ORGANISATIONAL SKILLS 1

Organisational paradigms; organisational culture and norms; worker socialisation; qualities and attributes of effective workers; self-management skills; interpersonal skills; effective interpersonal relationships.
Prerequisites: SSB003, SSB007
Credit Points: 12 **Contact Hours:** 3 per week

COB029 ORGANISATIONAL SKILLS 2

Tasks and functions of managers; managerial paradigms; managerial styles; teamwork in human service organisations; meetings; managing differences and conflicts, innovation and change.
Prerequisite: COB018
Credit Points: 12 **Contact Hours:** 3 per week

COB100 COMMUNICATION MANAGEMENT

Communication issues in an organisational setting, planning a course of action; using research to monitor change; application of problem-solving skills.
Prerequisite: COB112
Credit Points: 12 **Contact Hours:** 3 per week

COB101 COMPUTER-MEDIATED COMMUNICATION

How new communication technologies affect the traditional information processing systems within the corporate culture; the impact of new technologies on traditional writing and document design; information access and distribution; organisational networks; electronic mail; computerised text analysis and style replicators; computer conferencing; the human-machine interface and interpersonal relationships.
Credit Points: 12 **Contact Hours:** 3 per week

COB102 CONSULTING FOR ORGANISATIONAL CHANGE

Models of planned change; the change agent; change project management; diagnostic interventions; collecting, analysing and feeding back data; designing interventions; interpersonal and group process interventions; organisational process interventions; organisational strategy interventions; technostructural interventions; transition processes; professional ethics; evaluating and institutionalising change.
Prerequisite: COB106
Credit Points: 12 **Contact Hours:** 3 per week

COB103 CRITICAL PERSPECTIVES ON ORGANISATIONS & ENVIRONMENT

The art of organisational analysis; history of science; organisations as machines/instruments of domination; linguistic analysis; systems theory; organisations as political systems; organisations as psychic prisons; submodalities and shifting metaphors; organisations as flux and transformation: lessons from modern physics; hypothetical; ethics and the environment.
Credit Points: 12 **Contact Hours:** 3 per week

COB105 ETHICS

Morality & ethics; ethical relativism; ethical egoism; utilitarianism; Kantian and deontological systems; epistemology of human rights; emotivism/prescriptivism; virtue-based ethical systems; ethics and justice; ethics and individual choice; ethics and organisational change; ethical problems as managerial dilemmas; moral challenge of business.
Credit Points: 12 **Contact Hours:** 3 per week

COB106 GROUP COMMUNICATION: THEORY & PRACTICE

Exploration and practice in interpersonal communication skills such as listening, assertion and negotiation. Business and media interviewing and small group communication in organisational settings provide the focus for the program. Group dynamics and systems theory as a theoretical base for analysing communication performance. Students practice problem-solving strategies by rehearsing vocational situations.
Prerequisite: COB134
Credit Points: 12 **Contact Hours:** 3 per week

COB108 INTER-ORGANISATIONAL RELATIONS

The ways organisations interact; classic views reflecting competitive relationships contrasted with emerging forms, including cooperatives and strategic alliances; cross-cultural aspects of organisational forms and relationships with particular reference to Pacific rim nations.
Prerequisite: BSB102
Credit Points: 12 **Contact Hours:** 3 per week

COB110 ORGANISATION & SOCIETY

The context for studies in the broad area of organisation; a base for advanced studies in either organisational communication or organisational studies, drawing primarily upon sociology: functionalist, interpretative and critical perspectives.
Credit Points: 12 **Contact Hours:** 3 per week

COB111 ORGANISATIONAL CHANGE APPLICATIONS

Application of organisational theory and change skills through critical analyses of an organisation; case study organisation: on-site familiarisation and seminar; analysis of case study organisation; presentation of findings to client organisation; review: critique of an analysis: content and process.
Prerequisites: COB102, COB103
Credit Points: 12 **Contact Hours:** 3 per week

COB112 ORGANISATIONAL COMMUNICATION

How people communicate with each other in modern organisational settings, from small businesses to multinational organisations in the public and private sector; a problem-solving, interdisciplinary approach to communication up, down and across the organisation, among divisions and work units, among different professional and vocational specialists, and within work teams.
Prerequisite: BSB102
Credit Points: 12 **Contact Hours:** 3 per week

COB113 THEORETICAL PERSPECTIVES ON COMMUNICATION

The contemporary study of communication; the ways in which the theories may be applied to particular professional communication situations; an overview of the major theoretical and methodological approaches in the study of communication within a professional context.
Credit Points: 12 **Contact Hours:** 3 per week

COB114 TRENDS IN ORGANISATION DESIGN

Provides students with the ability to conceptualise and evaluate new perspectives in organisational design. Topics include: the future of work; classical perspective on design; open systems perspectives; sociotechnical systems perspectives; remote working; organisation learning; collaboration within and between organisations; experiments in work design; cooperatives; networks; the problem of power; distribution; open organisations.
Prerequisite: COB129
Credit Points: 12 **Contact Hours:** 3 per week

COB115 ORGANISATION & MANAGEMENT

An introduction to the theory, process and practice of management and organisations. Emphasis is placed on the importance of people in achieving organisational objectives and the need for participants in organisations to become more analytical and strategic

in their approach to managing various organisations including those in both the public and private sector.
Credit Points: 12 **Contact Hours:** 3 per week

COB116 SMALL BUSINESS ENTERPRISE

Small business in terms of its entrepreneurial qualities, management, planning, financing; its legal and economic environment, and its growth and development.
Credit Points: 12 **Contact Hours:** 3 per week

COB118 COMMUNICATION TECHNOLOGY IN ORGANISATIONS

The effects of communication technology on organisational structures and processes, and on people; the concepts and applications of technology which impact on information processing and communication in organisations.
Credit Points: 12 **Contact Hours:** 3 per week

COB119 TEXT FORMATTING & TRANSCRIPTION

The use of technology for document preparation, formatting and transcription, analysis of underlying principles of skills acquisition; traditional and technological perspectives on: document design, document formatting, business correspondence, tabulation, financial statements, business forms, document formatting for specialised businesses and transcription.
Credit Points: 12 **Contact Hours:** 3 per week

COB120 BUSINESS COMMUNICATION

Communication in business organisations; the way in which electronic production and transmission is complementing traditional methods of communication; the communication process; written, verbal and non-verbal communication in organisations; electronic communication, such as electronic mail, facsimile, telephone, video-conferencing and electronic calendaring; document preparation for traditional and electronic methods of communication, including word processing and desktop publishing; statistical presentation as communication tools.
Credit Points: 12 **Contact Hours:** 3 per week

COB121 RECORDS MANAGEMENT

The paper-based and electronic records and information systems operating within and between organisations; analysis of the impact that changes in communication technology have had on these systems.
Prerequisite: COB118
Credit Points: 12 **Contact Hours:** 3 per week

COB122 OFFICE PROCEDURES

Communication technology and its impact on functions and operational procedures in offices, and as a result enhances teaching competency in this area.
Credit Points: 12 **Contact Hours:** 3 per week

COB123 ISSUES IN COMMUNICATION TECHNOLOGY

The process of adoption and implementation of new communication techniques within business organisations; the effect of such implementation on work structures and job design and the resulting social issues and implications.
Prerequisite: COB118
Credit Points: 12 **Contact Hours:** 3 per week

COB126 SUPERVISION & 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 on these roles and duties brought about through changes in technology.
Prerequisite: COB123
Credit Points: 12 **Contact Hours:** 3 per week

COB128 SUPERVISED PROJECT

An individual research project investigating an approved aspect of organisational design, change and strategy within a local business organisation.
Prerequisite: Personal interview and approval by lecturer.
Credit Points: 12 **Contact Hours:** 3 per week

COB129 ORGANISATIONAL PROCESSES

Organisations are examined from four perspectives: individual, group, organisational and community; emphasis on developing skills for making organisations effective, efficient and humane.
Prerequisite: BSB102
Credit Points: 12 **Contact Hours:** 3 per week

COB130 WRITING FOR DESIGNERS 1

The writing process: style, accuracy and simplicity in writing; the editing process.
Credit Points: 4 **Contact Hours:** 2 per week

COB131 WRITING FOR DESIGNERS 2

Writing for the design professional; review of organisation and mechanics; types, formats, styles and review of professional documents; problems of technical style, bibliographic conventions and use of graphics.
Credit Points: 4 **Contact Hours:** 2 per week

COB132 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; observation of behaviour, research methods, interpretation and presentation of research; environmental stressors and their mediation by individual differences.
Credit Points: 4 **Contact Hours:** 2 per week

COB133 ORAL PRESENTATION

Formal oral presentation techniques, including meetings, conferences, interviews and speeches (informative and persuasive). Evaluation and assessment is by verbal report and presentation.
Credit Points: 3 **Contact Hours:** 1 per week

COB134 SPEECH COMMUNICATION: THEORY & PRACTICE

Based on the rhetorical perspective; oral, non-verbal and visual modes of communication in their application to business speaking. It aims to develop in the student the ability and confidence to successfully communicate in contemporary business and professional situations, such as: face-to-face business interviews; presentations to small groups, ie. clients, boards of directors, etc.; persuasive presentations to large groups such as the public, large company meetings, etc.
Credit Points: 12 **Contact Hours:** 3 per week

COB135 PROFESSIONAL COMMUNICATION (INFORMATION TECHNOLOGY)

Communicating successfully in writing and orally in contemporary professional situations. An understanding of the concepts and skills required for

effective practices in formal reporting and persuasive writing, oral reporting and persuasive speaking, group decision making and meeting procedure, leadership and participation.
Credit Points: 9 **Contact Hours:** 3 per week

COB136 PROFESSIONAL COMMUNICATION (SERVICE)
Communicating successfully in writing and orally in contemporary professional situations. An understanding of the concepts and skills required for effective practices in formal reporting and persuasive writing, oral reporting and persuasive speaking, group decision making and meeting procedures, leadership and participation.
Credit Points: 6 **Contact Hours:** 3 per week

COB137 ENGLISH FOR TECHNOLOGISTS
The principles of and strategies for writing effective technical documents and communicating technical material.
Credit Points: 6 **Contact Hours:** 3 per week

COB138 WRITTEN COMMUNICATION: THEORY & PRACTICE
The principles of expository and persuasive writing in academic and business contexts.
Credit Points: 12 **Contact Hours:** 3 per week

COB139 WRITING FOR DESIGNERS 1
Enhancement of students' skills in speaking and writing for a professional audience. Includes: analysing the characteristics of successful spoken and written communication; delivering informative presentations; and writing research papers.
Credit Points: 4 **Contact Hours:** 2 per week

COB140 WRITING FOR DESIGNERS 2
Development of further skills in speaking and writing for a business audience. Includes: analysing the characteristics of a presentation to clients; presenting a polished client brief; writing proposals, reports, and business letters.
Credit Points: 4 **Contact Hours:** 2 per week

COB141 COMMUNICATIONS
Development of skills in reading, writing and spoken communication with special reference to professional and administrative contexts; the library paper; preparation and presentation of research papers; business correspondence; objectives, format, composition; report writing and presentation, editing; and speech preparation.
Credit Points: 4 **Contact Hours:** 2 per week

COB142 COMMUNICATION FOR ENGINEERS
Development of confidence in the dissemination of knowledge, skills and information to both technical and non-technical associates via written and oral communication resources; oral presentation techniques; effective written communication skills.
Prerequisite: COB160
Credit Points: 2 **Contact Hours:** 1 per week

COB143 TECHNICAL WRITING
The prose, mechanical and graphic elements in reports, proposals, instructions and other technical literature are analysed and put into practice. The subject includes the preparation of routine correspondence and presents contemporary developments in organisational communications.
Credit Points: 2 **Contact Hours:** 1 per week

COB144 LITERATURE & COMMUNICATION
Development of skills in written communication, and in dealing with a variety of communicative and textual forms. Students acquire an understanding of various forms of written communication, specifically literary forms such as fiction and poetry, and performative, such as drama. Literary theory as well as language and communication theory. Background for students wishing to take electives in the humanities area in later semesters.
Prerequisite: COB160
Credit Points: 12 **Contact Hours:** 3 per week

COB157 CORPORATE WRITING & EDITING
The specific requirements of writing in the corporate environment; principles and procedures in writing management submissions, reports, and manuals, as well as letters, memos, and resumes; the content, style and presentation of professional documents for specific readers.
Prerequisite: COB138 or COB160
Credit Points: 12 **Contact Hours:** 3 per week

COB158 ADVANCED SPEECH COMMUNICATION (THEORY & PRACTICE)
Based on the semiotic perspective using practical drama as the tool for learning. Communication theory: verbal structure, paralanguage, proxemics, kinesics, etc. through this medium. The development of expressive self-presentation skills in the business environment. The subject aims to develop communicators with an understanding of communicator style who are creative and risk-taking in their presentations; who, having an understanding of the multiple message levels of oral communication, will approach a presentation with a prepared control over visual, verbal, paralinguistic, and kinesic elements of performance.
Prerequisites: COB134, COB113
Credit Points: 12 **Contact Hours:** 3 per week

COB159 RESEARCH CONCEPTS & TECHNIQUES
An overview of the main traditions of research; secondary research: various library information retrieval techniques; qualitative methods: focus groups, action research, content analysis and institutional analysis; quantitative techniques: survey methods and the questionnaire relationship between consumers and researchers.
Credit Points: 12 **Contact Hours:** 3 per week

COB160 PROFESSIONAL COMMUNICATION
Principles and strategies that enable students to cope with the complex rhetorical demands of writing and speaking within the organisational culture.
Credit Points: 12 **Contact Hours:** 3 per week

CON101 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. Alternative perspectives for strategic thinking and application in the environments of marketing, advertising, editorial journalism, or-

ganisational communication, public relations, public affairs and public information.
Credit Points: 12 **Contact Hours:** 3 per week

CON102 ADVANCED ORGANISATIONAL COMMUNICATION

How people relate to each other in modern organisational settings, from small businesses to multi-national organisations in the public and private sector; communication up, down and across the organisation, among divisions and work units, among different professional and vocational specialities and within work teams; a problem-solving, interdisciplinary approach with reference to, at least, social psychology, sociology, culture theory, systems thinking and network analysis.
Credit Points: 12 **Contact Hours:** 3 per week

CON103 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 communication programs and systems.
Credit Points: 12 **Contact Hours:** 3 per week

COP100 BUSINESS COMMUNICATION

The development of strategic communication skills for application within the contemporary business and professional organisation: listening and non-defensive communication; negotiation, interviewing and assertion; group communication processes and meeting procedures; oral reporting; proposal and report writing; the study of managerial communication involving organisational climate, behaviour and politics.
Credit Points: 12 **Contact Hours:** 3 per week

COP101 ARTS ADMINISTRATION & SOCIETY

The foundations of the arts and arts administration in Australia; the role of arts organisations; organisational structres and planning processes; facilities; policy-making; government; community arts; current research and practices.
Credit Points: 12 **Contact Hours:** 3 per week

COP102 THE ARTS INDUSTRY

The framework of the arts as an industry; contracts and artists' rights; personnel and industrial relations; marketing the arts; law and the arts; tickets and subscriptions; government funding and private sponsorship; communications and the use of the media; management case studies; operational procedures within arts organisations.
Prerequisite: COP101
Credit Points: 12 **Contact Hours:** 4 per week

COP103 STRATEGIC ORGANISATIONAL THOUGHT & PRACTICE 1

Philosophy and development of management; leadership; managerial roles and skills; decision making and problem solving; organisational design; organisational change; organisational analysis using metaphors; organisational dynamics; creativity and control; management of human resources; strategic thinking.
Credit Points: 12 **Contact Hours:** 3 per week

COP104 STRATEGIC ORGANISATIONAL THOUGHT & PRACTICE 2

Continuation of COP103.
Credit Points: 12 **Contact Hours:** 3 per week

COP105 ISSUES IN OFFICE ADMINISTRATION

Issues in office administration roles in the workplace; interpersonal relations; organisational culture and climate; development of practical skills within an appropriate learning framework to deal with these issues.
Credit Points: 12 **Contact Hours:** 3 per week

COP106 COMMUNICATION THEORY

An overview of classical rhetorical theory, contemporary rhetorical theory and systems theory; the ways in which these theories, methods and approaches may be applied to particular professional communication situations.
Credit Points: 12 **Contact Hours:** 3 per week

COP108 COMMUNICATION TECHNOLOGIES & SOCIETY

The history of technology; technological determinism; technological assessment; social impacts; new technologies: digital, microprocessors, fibre and satellites; convergence; new applications: ISDN, HDTV, electronic publishing, computer-supported: cooperative work.
Credit Points: 12 **Contact Hours:** 3 per week

COP109 PERSONAL & INTERPERSONAL SKILLS

An overview of the social, organisational and service contexts in which human service organisations operate; development of an interpersonal style for effectiveness in such organisations; development of skills in career management, job getting, time management, stress management, communication, assertion, working with managers, collaborating in work groups, managing disagreement and conflict, and contributing to change.
Credit Points: 12 **Contact Hours:** 3 per week

COP110 INNOVATION & CHANGE

Clarification of need for change in human service organisations; exploration of models of change, approaches to change and the change agent role; development of effective strategies for contributing to and initiating change.
Credit Points: 12 **Contact Hours:** 3 per week

COP111 INDEPENDENT STUDY 1

COP112 INDEPENDENT STUDY 2

An indepth study of a topic that extends the body of knowledge of course participants, enhances their performance as a human service manager or benefits their organisation.
Credit Points: 12 **Contact Hours:** 3 per week

COP113 ORAL COMMUNICATION SKILLS

Formal oral communication techniques including meetings, conferences, interviews and speeches (informative and persuasive).
Credit Points: 2 **Contact Hours:** 1 per week

COP114 REPORT PREPARATION

Formal writing techniques, including reports, instructions, proposals, specifications, correspondence and essays. Report writing. Structure and content of reports. Summaries and subdivision of material. Precis. Use of tables, charts, and illustrations in written presentation. Clarity and the selection and management of relevant data.
Credit Points: 2 **Contact Hours:** 1 per week

COP115 PROFESSIONAL COMMUNICATION

Oral and written presentation. Clarity and the selection and management of relevant data. Report writing. Structure and content of reports. Summaries and subdivision of material. Precis.
Credit Points: 5 **Contact Hours:** 2 per week

COP116 SKILLS FOR OFFICE AUTOMATION

Development of keyboard skills using micro-computers; introduction to basic word processing and text editing techniques covering a range of type-written business communications: correspondence, reports, tabulations.
Credit Points: 12 **Contact Hours:** 3 per week

COP118 MANAGEMENT PRACTICES 1

Exploration of managerial paradigms and their relevance for human service organisations; discussion of issues affecting the managerial task; development of a managerial style that is consistent with the tasks and philosophies of the human services.
Credit Points: 12 **Contact Hours:** 4 per week

COP119 MANAGEMENT PRACTICES 2

Development of managerial skills including those relating to recruitment and selection, supporting and developing workers, assisting with problems of workers, developing collaborative work environments, managing meetings, making decisions, resolving conflict and stress.
Credit Points: 12 **Contact Hours:** 4 per week

COP120 OFFICE AUTOMATION & ADMINISTRATION

Introduction to the concepts and practice of office automation with emphasis on advanced techniques of computerised text generation and editing using the word processor; office style integrated projects; implications for administrators of the introduction of computer-based technology into the office and implementation of appropriate procedures.
Prerequisite: COP116
Credit Points: 12 **Contact Hours:** 3 per week

COP121 MEDIA MANAGEMENT

The use of the print and broadcasting media to improve organisational communications; instruction in basic newswriting and other media practices; the development of in-house and external media programs.
Prerequisite: COB138
Credit Points: 12 **Contact Hours:** 3 per week

COX100 INTRODUCTION TO ORGANISATION

Examination of basic management and organisational skills and their application to the workplace.
Credit Points: 12 **Contact Hours:** 4 per week

COX101 COMMUNICATION

Principles of effective communication; techniques of oral and written communication; reading and listening to gain information; interviewing, report writing; preparing documentation and manuals.
Credit Points: 12 **Contact Hours:** 3 per week

COX102 WRITTEN ENGLISH

The appreciation and study of correct English writing style in the business profession; grammar, punctuation, spelling, usage and composition.
Credit Points: 12 **Contact Hours:** 4 per week

COX103 WRITTEN & SPOKEN ENGLISH

The development of written and spoken language skills used in business communication; report writing, letter writing, speech writing, intra-office communication; presentational speaking, interviewing and meeting procedure.
Credit Points: 12 **Contact Hours:** 4 per week

COX104 COMMUNICATION TECHNIQUES

Techniques of technical writing appropriate to applied science vocations; technical report writing, writing for non-technical audiences; application of communication principles in technical writing; application of communication principles to non-written communications; individual and group speaking; speech writing; oral delivery of technical papers; formal meeting procedures.
Credit Points: 4 **Contact Hours:** 2 per week

COX107 SEMINAR

Preparation of technical papers and reports for both written and oral presentation; business correspondence; meeting procedures.
Credit Points: 4 **Contact Hours:** 1.5 per week

CPB101 SCHOOLS & COMMUNITIES

The range of inter-relationships between schools and their communities; skills and techniques for analysing school-community relationships; case studies; student involvement in fieldwork and the development of appropriate practical skills.
Credit Points: 8 **Contact Hours:** 2 per week

CPB102 SOCIALISATION THROUGH PLAY

The socialisation of a child in both the home and the school; socialisation through the medium of play.
Credit Points: 8 **Contact Hours:** 2 per week

CPB200 EDUCATION IN THE AUSTRALIAN CONTEXT

The application of theoretical models and other paradigms to the development of a personal perception of Australian identity; the relationship between identity, society, culture and education; the investigation of specific key dimensions of Australian society and identity; dynamic and changing contemporary phenomena.
Credit Points: 8 **Contact Hours:** 3 per week

CPB201 EDUCATION & SOCIETY

Three major focuses of the sociocultural study of education and schooling: historical, philosophical and social origins of education; educational transmission and reproduction; socialisation processes and educational outcomes.
Credit Points: 12 **Contact Hours:** 3 per week

CPB202 EDUCATION & CHANGE

Examination of change as an adjunct of the character and values of society and the nature and needs of human beings. Existing and developing agendas for change are examined in several fields such as: multiculturalism; equity; employment; educational assessment; teaching and learning with a view to encouraging students to develop personally effective responses to the demands of change that are relevant to schools and pupils.
Prerequisite: CPB201
Credit Points: 8 **Contact Hours:** 3 per week

CPB280 EDUCATIONAL LEADERSHIP

The foundations of leadership: systems theory; social systems; values; organisations; role theory; the

leaders and the program; developing a model of leadership; identifying and investigating leadership situations.
Credit Points: 8 **Contact Hours:** 3 per week

CPB281 ETHNICITY & RACISM IN EDUCATION

An historical and theoretical study of ethnicity, indigenous identity and assignation movements, pluralism and social engineering; approaches for combating racism and the role of the Human Rights Commission; case studies; examination of a range of approaches to developing cultural sensitivity, curriculum change and a classroom climate which applies national agenda and concerns to teaching practice.
Credit Points: 8 **Contact Hours:** 3 per week

CPB282 POLICY ISSUES IN EDUCATION

The development in students of the knowledge, skills and understandings which enable them to be: originators of policy at community and school levels of concern; participants in policy formulation at all levels; and end-users of policy. A particular emphasis is placed upon the notion of professional empowerment and positive self-worth as a possible outcome of involvement in these processes.
Credit Points: 8 **Contact Hours:** 3 per week

CPB301 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.
Credit Points: 12 **Contact Hours:** 3 per week

CPB302 EDUCATION & SOCIETY

Social analysis and its application to educational and social issues; the development of schooling as an institution and the role of schools in social control and in perpetuating inequalities. Particular emphasis is given to the impact of ideologies in education.
Prerequisite: CPB301
Credit Points: 12 **Contact Hours:** 3 per week

CPB303 PHILOSOPHICAL ANALYSIS OF SCHOOL PRACTICES

The subject analyses current school practices, including the organisation of schools, the nature of teacher work and debates about education from a philosophical perspective. It then centres on articulating a philosophy of teaching which emphasises a transformative approach to education.
Prerequisites: 1st and 2nd Year Studies in Education
Credit Points: 12 **Contact Hours:** 3 per week

CPB320 CRITICAL PERSPECTIVES ON CLASSROOM KNOWLEDGE

The selection of classroom knowledge; the epistemological aspects; sociology of knowledge; historical perspectives on the curriculum; teachers and texts; curriculum debates; politics of school knowledge; academic freedom and dangerous knowledge.
Credit Points: 12 **Contact Hours:** 3 per week

CPB321 EDUCATION FOR A MULTICULTURAL SOCIETY

In this subject students are introduced to the concept of multiculturalism and are given specialist knowledge to prepare them to teach in schools in a multicultural society.
Prerequisites: CPB301, PB302
Credit Points: 12 **Contact Hours:** 3 per week

CPB420 CONTEMPORARY ISSUES IN EDUCATION

Exploration of the cultural and social contexts and selected 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.
Credit Points: 12 **Contact Hours:** 3 per week

CPB421 PHILOSOPHICAL PERSPECTIVES ON SCHOOLING

Recent developments in philosophy of education, which attempt to account for the micro-institutional practices of schooling, those relating to school prospectuses, timetables, school architecture, classroom work.
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 as they relate to classroom practices.
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, social change and education practice.
Credit Points: 12 **Contact Hours:** 3 per week

CPB424 SOCIOLOGY OF THE SCHOOL

Using a sociological framework, this subject provides teachers and administrators with an opportunity to analyse schools and classrooms within a social context. From this analysis and the understanding gained, students are able to draw implications to assist them in carrying out their teaching and administration practices more effectively.
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 arts play in education; the democratisation of culture, encouraging more representative forms of cultural production; the evaluation of arts, particularly in the classroom; theory of creativity and the imagination; the deficiencies of an individualistic ethic in the arts.
Credit Points: 12 **Contact Hours:** 3 per week

CPB440 THE COMMUNITY & SCHOOL ADMINISTRATION

This subject provides students with an opportunity to broaden their understanding of the community context in which schools operate. It examines examples of successful community-school linkages such as school advisory councils and develops students' capacities to manage and develop these linkages.
Prerequisites: Minimum of one year's teaching experience.
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 educa-

tion; growth of educational bureaucracies; State involvement in secondary education; establishment of tertiary education in Australia; the influence of particular reports on Australian education.
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 subject teachers are given specialist knowledge and skills to prepare students for life in a multicultural society.
Credit Points: 12 **Contact Hours:** 3 per week

CPB443 COMPARATIVE & INTERNATIONAL EDUCATION

Australia's identity in the international community has significant implications for education. This subject introduces students to major international issues in education through studies of global developments and by comparing Australian education with education in other cultures. The subject develops skills and knowledge appropriate for teachers of the 1990s and the next century.
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; Aboriginal culture and education; current initiatives in Aboriginal education; participation of Aborigines in policies and programs.
Credit Points: 12 **Contact Hours:** 3 per week

CPB445 CAREER & LIFE PATTERNS OF WOMEN TEACHERS

The relevance of theories of adult development and career development for understanding the personal and professional life patterns of women teachers is studied. Emphasis is placed upon acquiring personal coping strategies. This subject is also of relevance to male teachers seeking a deeper understanding of conflicts facing female teachers.
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.
Credit Points: 12 **Contact Hours:** 3 per week

CPB491 SOCIOLOGY OF EDUCATION

The nature and scope of sociology; sociology and education; the cultural context of educational institutions and teaching; sub-cultures in the school and their interaction; appropriateness of education to modern Australian society.
Credit Points: 12 **Contact Hours:** 3 per week

CPB492 PHILOSOPHY OF EDUCATION

Meaning, purpose and function of philosophy; philosophy of education; the continuing education debate; the concept of knowledge; traditional and progressive education; confronting the future in a changing society; development of a personal philosophy of education.
Credit Points: 12 **Contact Hours:** 3 per week

CPB493 SECONDARY EDUCATION TODAY

Consequences of universal secondary schooling; school and work; transition initiatives, career education, link courses, work experience programs. Alternatives in secondary schooling; recent developments in secondary school discipline areas.
Credit Points: 12 **Contact Hours:** 3 per week

CPN601 EMERGING LEADERSHIP APPROACHES IN EDUCATION

This subject explores the continuing development of approaches to studying educational leadership within the current social, political and economic contexts of institutions with educative functions, eg. schools, TAFE, health systems and universities. Theoretical perspectives which can help inform leadership practices are addressed as is the essence of the concept itself. Theory and practice are examined in order to facilitate an understanding of leadership trends in the 1990s.
Credit Points: 12 **Contact Hours:** 3 per week

CPN602 LEADERS AS AGENTS OF CHANGE IN EDUCATION

This subject addresses a fundamental dilemma which is emerging for leaders. While much of the literature reflects a need for more democratic, participative and facilitative leadership practices in periods of change, the political and economic climate calls for more market oriented and cost effective management. This dilemma is examined at the structural level of institutions and at the level of individual strategic planning in order to help students plan their own leadership practices.
Credit Points: 12 **Contact Hours:** 3 per week

CPP410 UNDERSTANDING EDUCATION A

This subject responds to current needs for quality teaching and learning in schools. It seeks to equip future professionals for their complex roles as educators, inviting them to reflect upon the origins, purposes and consequences of educational thought and action. This process engages concepts drawn from the traditional educational disciplines and responds to contemporary challenges by means of critical enquiry. It integrates ideas about teaching with current practices in actual professional contexts. Four major themes will be explored within a framework which progresses from a focus on individual experience to the broader analysis of immediate educational contexts. These themes are: social situation; styles of management/leadership; notions of relevant knowledge; observation and analysis of contemporary educational practice.
Co-requisite: LEP410
Credit Points: 9 **Contact Hours:** 3 per week

CPP411 UNDERSTANDING EDUCATION B

The subject broadens the focus of CPP410 to include a wider social, economic, political and cultural context. It then looks at the goal of articulating an appropriate educational philosophy and putting it into practice. Main themes are: images of schooling and the teaching profession; articulating a philosophy of teaching and responding to popular concepts and misconceptions of that role. Observation of contemporary educational practice runs concurrently with these themes.
Prerequisite: CPP410 **Co-requisite:** LEP411
Credit Points: 9 **Contact Hours:** 3 per week

CPP420 ABORIGINAL EDUCATION CURRICULUM & TEACHING STUDIES C

This Curriculum C subject provides opportunities for students with an appropriate background to prepare to teach Aboriginal education. It develops skills and understandings in planning, assessment, teaching and learning strategies, and builds on the general principles of the Curriculum A and B groups of subjects.
Credit Points: 12 **Contact Hours:** 3 per week

CPP431 THE SOCIOCULTURAL CONTEXT OF CONTEMPORARY EDUCATIONAL ISSUES & PRACTICE

Socially constructed realities of educational processes; the professional and community convergence in educational experience; cultural and economic reproduction in education; ethnic and race concerns in education; equity in and through education; common and selective curricula; the centrality of curricula to school and community; long-term philosophy of teaching based on experience and reflection.
Credit Points: 8 **Contact Hours:** 4 per week

CPP500 SOCIOCULTURAL ISSUES IN EDUCATION

Examination of structural and organisational aspects of the school arising in the hidden curriculum; impact of the local community on school/college life, including multiculturalism, community relations, responses to family crises; innovation and change arising in schools in response to the above factors.
Credit Points: 10 **Contact Hours:** 3 per week

CSA165 COMPUTING

The BASIC language; computer utilisation and organisation; problem solving; analysis of numerical and non-numerical problems; a brief introduction to FORTRAN and the differences between it and BASIC.
Credit Points: 7 **Contact Hours:** 3 per week

CSA259 INTRODUCTION TO COMPUTING

A broad overview of the many facets of computing ranging from the impact of computers on society through to the details involved in database organisation and the inter-relationship between these facts. The emphasis of the course is on demystifying computers; the student will gain an understanding of the abilities of computers and, in particular, their role in health science.
Credit Points: 8 **Contact Hours:** 2 per week

CSB010 INTRODUCTION TO SOFTWARE ENGINEERING

Sets; propositional calculus; predicate calculus; matrices; graphs; trees; Boolean algebra; finite state automata; turning machine; Halting problem; complexity; formal methods; Z notation; case studies; refinement.
Credit Points: 12 **Contact Hours:** 3 per week

CSB011 INTRODUCTION TO PROGRAMMING

Conversion of problems to algorithmic solutions; design, coding, testing and debugging programs; structured programming techniques, style and documentation.
Credit Points: 12 **Contact Hours:** 3 per week

CSB012 CONCEPTS IN COMPUTER SYSTEMS

Computer evolution, computer hardware and architecture; input, output and storage devices; computer systems, computer software levels, data communications; applications packages and an introduction to SQL. (Incompatible with CO3101.)
Credit Points: 12 **Contact Hours:** 3 per week

CSB013 DATA STRUCTURES

Built-in data structures: arrays, strings, sets, seconds, files (sequential, indexed, random). User-defined data structures: lists, stacks, queues, trees, graphs. Data abstraction: information hiding, packages, generic packages.
Prerequisites: CSB010, CSB011
Credit Points: 12 **Contact Hours:** 3 per week

CSB015 SYSTEMS SOFTWARE

Systems structure, kernal architectures, user perspective, file system, buffer cache, control processes, system call interface, interrupt handling, process scheduling, memory management. Shell programming, system management. Introduction to C.
Prerequisite: CSB011
Credit Points: 12 **Contact Hours:** 3 per week

CSB017 SOFTWARE ENGINEERING

Specification methods; modular programming techniques; language support for modular programming; debugging techniques.
Prerequisites: CSB011, ISB019
Credit Points: 12 **Contact Hours:** 3 per week

CSB018 INTRODUCTION TO COMPUTER NETWORKS

Distributed system architecture and open system interconnection; data communications hardware; data communications software, network management; local area networks; future trends in networking.
Prerequisite: ISB095 or ISB014
Credit Points: 12 **Contact Hours:** 3 per week

CSB087 PROGRAMMING LANGUAGES

Further software development; techniques of program development; top-down design and modularity; computer programming using other appropriate languages. (Incompatible with CSB013 and CSB015.)
Prerequisite: ISB095
Credit Points: 12 **Contact Hours:** 4 per week

CSB100 INTRODUCTION TO COMPUTER SCIENCE

Establishes a basis for the major computing topics to be covered in later subjects; provides students with a disciplined and structured approach to algorithm design, and introduces a range of problem-solving methods and a variety of programming languages which can be used to process information in a computer.
Credit Points: 9 **Contact Hours:** 3 per week

CSB101 COMPUTER SYSTEMS 1

The physical organisation of a computer system: the control and flow of information within the system, the representation of data in a computer system, and the design of elementary digital electronic circuits. Topics covered include Boolean algebra; state concepts; data representation; processor organisation; memory organisation; input/output devices; machine language; and assembly language.
Credit Points: 9 **Contact Hours:** 3 per week

CSB110 PROGRAMMING PRINCIPLES

Extending material introduced in CSB100; structured program design techniques; advanced algorithms and methods of proving program correctness.
Prerequisite: CSB100
Credit Points: 9 **Contact Hours:** 3 per week

CSB155 INTRODUCTION TO COMPUTING

The computer as a processor of information; an overview of computers, computer organisation, systems software, programs and the range of programming languages; the design of algorithms using structured techniques and stepwise refinement; implementation and execution of such algorithms using PASCAL.
Credit Points: 12 **Contact Hours:** 3 per week

CSB181 INTRODUCTION TO COMPUTER SCIENCE

Provides a disciplined and structured approach to algorithm design and problem-solving methods; introduces a variety of programming languages which can be used to process information in a computer. On completion of the subject, students should be able to solve a variety of problems in different application areas.
Credit Points: 12 **Contact Hours:** 4 per week

CSB191 INTRODUCTION TO COMPUTING

Introduction to technical computer programming; teaching programming techniques for the writing of correct and efficient programs for limited, but typical engineering problems; using structured programming techniques to write, modify and enhance program applications on selected computer systems using the PASCAL programming language.
Co-requisites: MAB193, CEB184
Credit Points: 4 **Contact Hours:** 2 per week

CSB200 FOUNDATIONS OF COMPUTING 1

The study of abstraction: data abstraction as a technique for dealing with complex data inter-relationships, and procedural abstraction as a way of expressing complex operations on such structures; focuses on the concept of the abstract data type (ADT) and introduces a number of important examples of ADTs and associated algorithms; also includes topics such as the analysis of algorithmic complexity and proofs of correctness.
Prerequisite: CSB110
Credit Points: 9 **Contact Hours:** 3 per week

CSB201 COMPUTER SYSTEMS 2

Organisation of simple computer systems and the way in which hardware provides the basic facilities for the machine; techniques involved in the programming of input-output operations and the interrupt structure which underlies operating system organisation in uniprocessor systems.
Prerequisite: CSB101
Credit Points: 9 **Contact Hours:** 3 per week

CSB210 FOUNDATIONS OF COMPUTING 2

Analysis of algorithms, the various styles of programming language and the abstractions which they support; languages with notable features designed for special computer classes of problems; recursion and iteration; algorithms; space and time requirements.
Prerequisite: CSB110
Credit Points: 9 **Contact Hours:** 3 per week

CSB212 LANGUAGES & LANGUAGE PROCESSING

Theory and practice of language processing; the design and recognition of small languages for command processors and other interactive programs; advanced data structures and algorithm design.
Prerequisite: CSB200
Credit Points: 9 **Contact Hours:** 3 per week

CSB213 SCIENTIFIC APPLICATIONS

Provides students with a thorough knowledge of C, and teaches the solving of advanced scientific (eg. mathematical and engineering) problems.
Prerequisite: CSB110
Credit Points: 9 **Contact Hours:** 3 per week

CSB263 COMPUTING

A basic understanding of computer programming; simple applications in the BASIC language. Topics include: computer utilisation; computer organisation; hardware; software; data organisation; information storage retrieval; computer systems; programming in BASIC; problem solving; analysis of numerical and non-numerical problems; brief introduction to FORTRAN; use of WordPerfect, VP Planner and dBase III Plus.
Credit Points: 12 **Contact Hours:** 3 per week

CSB283 SCIENTIFIC APPLICATIONS

Provides a thorough knowledge of FORTRAN, and teaches the solving of advanced scientific (eg. mathematical and engineering) problems; FORTRAN programming to an advanced level including aspects of portability arising from differences in standards and compiler implementation; mathematical software.
Prerequisite: CSB155
Credit Points: 12 **Contact Hours:** 3 per week

CSB291 INTRODUCTION TO FORTRAN

Mainframe and industry standard micro-based systems, applying the programming techniques acquired in CSB191 to the FORTRAN programming language.
Prerequisite: CSB191
Credit Points: 4 **Contact Hours:** 2 per week

CSB292 FOUNDATIONS OF COMPUTING 2

Analysis of algorithms; the various programming languages styles; and the abstractions which they support; languages with notable features designed for special computer classes of problems; recursion and iteration; algorithms; and space and time requirements.
Prerequisite: CSB280
Credit Points: 12 **Contact Hours:** 4 per week

CSB294 COMPUTER PROGRAMMING

An introduction to algorithms, programs and computers; basic programming; program structure; programming and computing systems; debugging and verification of programs; data presentation; special programming topics.
Co-requisite: SVB121
Credit Points: 6 **Contact Hours:** 3 per week

CSB301 OPERATING SYSTEMS

Structure of operating systems and real-time software; process and resource management functions of such software and its realisation in terms of a hierarchy of abstract machines, each of which depends on the set of facilities provided by the abstract machine immediately below it in the hierarchy; considerable emphasis on practical work.
Prerequisites: CSB200, CSB201 or CSB282, CSB290
Credit Points: 9 **Contact Hours:** 3 per week

CSB302 SOFTWARE ENGINEERING

Techniques essential to the production of software systems which are reliable, within budget, fully documented, and well tailored to their uses; practical work to apply these techniques in the organisation; management and development of software projects with

emphasis on modern programming languages supporting software engineering (eg, Ada, Modula-2).
Prerequisite: CSB200 or CSB290
Credit Points: 9 **Contact Hours:** 3 per week

CSB311 ADVANCED COMPUTER ARCHITECTURES

Organisation of contemporary computer systems and the variety of different structures which may be used for specific tasks; theory and case studies based on existing machines of practical or theoretical importance.
Prerequisite: CSB201 or CSB282
Credit Points: 9 **Contact Hours:** 3 per week

CSB319 SPECIAL STUDIES

CSB320 SPECIAL STUDIES

Covers aspects of current scientific interest and makes allowances for significant developments or emphasis in computing not included in the remainder of the course program. Check School noticeboards for further details.
Prerequisite: Completion of at least half of the normal program of the Bachelor of Applied Science (Computing) or completion of at least half of the Graduate Diploma in Computing Science or 60 points in computing subjects in the Science major program.
Credit Points: 9 **Contact Hours:** 3 per week

CSB321 GRAPHICS

The nature of computer graphics hardware and software; thorough grounding in the design and implementation of computer graphics software so as to enable students to implement graphic systems in their particular application areas.
Prerequisite: CSB213 or CSP213 or CSB283
Credit Points: 9 **Contact Hours:** 3 per week

CSB324 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 major impact on the use of computers in the near future.
Prerequisite: CSB210 or CSP214 or CSB292
Credit Points: 9 **Contact Hours:** 3 per week

CSB325 EXPERT SYSTEMS

Expert systems in the AI context; knowledge representation techniques; inference methods; uncertainty; the expert system development process; case studies of existing expert systems; the human/expert system interface; limitations and social implications of expert systems; current international knowledge-based system programs and future perspectives.
Prerequisite/Co-requisite: CSB210 or CSP214 or CSB292
Credit Points: 9 **Contact Hours:** 3 per week

CSB326 SYSTEMS PROGRAMMING

UNIX operating system at the user and systems programming levels: a study of shell programming and of the UNIX/C programming environment; a detailed examination of UNIX process and device management, UNIX security and UNIX administration; some time is spent relating the parallelism and inter-process communication features of UNIX/C to similar features in the languages Modula-2 and Ada.
Prerequisite: CSB301 or CSP213
Credit Points: 9 **Contact Hours:** 3 per week

CSB350 MISCELLANEOUS STUDIES

Selected theoretical and/or practical work to complement and/or supplement other subjects being studied.
Credit Points: 3 **Contact Hours:** 1 per week

CSB490 SOFTWARE ENGINEERING

The structure and syntax of well-designed programs as well as programming techniques for use in electronics, communications and electrical engineering, using examples from C and UNIX.
Prerequisite: CSB181
Credit Points: 6 **Contact Hours:** 3 per week

CSB860 COMPUTER SYSTEMS & ARCHITECTURE

Single and multi-user operating systems; interaction with computer systems and management of stored information; definition and implementation of algorithms in suitable language; selection of computable representation for real world concepts and application in computer programs; hierarchy of levels of abstraction; adoption of abstracted views of real world information processing or problem-solving situations; capabilities and limitations of conventional, sequential processing machine architectures.
Credit Points: 10 **Contact Hours:** 3 per week

CSB862 COMPUTATIONAL & MATHEMATICAL FOUNDATIONS

Fundamental structures and operations; set theory; algorithms, model building, problem solving and computer implementation.
Credit Points: 12 **Contact Hours:** 3 per week

CSB864 PROGRAMMING PRINCIPLES

The development of computer software; data and procedural abstraction; modular programming, stepwise refinement and bottom-up techniques.
Prerequisite: CSB860
Credit Points: 12 **Contact Hours:** 3 per week

CSB866 ARTIFICIAL INTELLIGENCE

Artificial intelligence as a discipline; philosophical issues, knowledge representation, reasoning and heuristic methods used in AI; introduction to AI programming.
Prerequisites: CSB860, CSB862
Credit Points: 12 **Contact Hours:** 3 per week

CSB875 HUMAN-COMPUTER INFORMATION

The limits that exist to the understanding of human cognition with particular reference to the construction of computer models; the utility and limitations of the tool metaphor to describe human-computer interaction; pre-understanding and background required for effective tool use; model building by the user; identification of forms of linguistic communication; tool construction and use.
Prerequisites: CSB860, CSB862 and ISB863
Credit Points: 10 **Contact Hours:** 3 per week

CSB960 PROJECT WORK

Students, either individually or in small groups, undertake a substantial project relevant to the needs of industry and designed to provide insight into industrial requirements. Each project is 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.
Prerequisites: Completion of at least two-thirds of the Bachelor of Applied Science (Computing).
Credit Points: 12 **Contact Hours:** 4 per week

CSB970 PROJECT WORK

The first half of an optional year-long project taken in conjunction with CSB960 on the approval of the

course coordinator. 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.
Prerequisites: Completion of at least two-thirds of the Bachelor of Applied Science (Computing).
Credit Points: 12 **Contact Hours:** 4 per week

CSB980 PROJECT (IF22)
Students in IF22 only, either individually or in small groups, undertake a substantial project relevant to the needs of industry and designed to provide insight into industrial requirements. Each project is 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.
Co-requisites: This subject must be done in the final year of the course.
Credit Points: 30

CSN100 THEORY OF COMPUTING 1
Formal properties of programs; the view of programs as predicate transformers is developed as a method of constructing provably correct algorithms; methods of software development based on formal specifications.
Prerequisite: CSB210 (or equivalent)
Credit Points: 12 **Contact Hours:** 3 per week

CSN110 COMPILER CONSTRUCTION
The organisation and structure of language translators 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.
Prerequisite: CSP212 (or equivalent)
Credit Points: 12 **Contact Hours:** 3 per week

CSN201 RESEARCH METHODOLOGY
Topic of research by agreement between the student and a Faculty staff member acting as project supervisor. Students must attend lectures/seminars of approximately 1 hour every two weeks (on average). They will also engage in literature search and generally other design aspects of their research project.
Credit Points: 12

CSN202 HONOURS PROJECT
This is a continuation and completion of the research project initiated for CSN201.
Prerequisite: CSN201
Credit Points: 12

CSN210 DISTRIBUTED SYSTEMS
Provides a thorough understanding of the rationale for distributed computer systems, their domain of application and the principles of distributed control underlying their construction. A number of representative systems will be examined throughout the subject.
Prerequisites: CSB301, CSB311
Credit Points: 12 **Contact Hours:** 3 per week

CSN220 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 major impact on the use of computers in the near future.
Prerequisite: CSB324 or equivalent
Credit Points: 12 **Contact Hours:** 3 per week

CSN300 THEORY OF COMPUTING 2
Formal language theory; investigation of various types of simple automata and pushdown automata and their relation to context free languages; discussion of some aspects of computational complexity.
Prerequisite: CSP212 or equivalent
Credit Points: 12 **Contact Hours:** 3 per week

CSN301 MINOR PROJECT
CSN302 MINOR PROJECT
CSN303 MINOR PROJECT
CSN304 MINOR PROJECT
Students may undertake a number of minor projects so that they can pursue specialised areas of interest, or broaden their knowledge in areas of relevance to their employment. Topics are to be decided by agreement between the student and a Faculty staff member acting as supervisor.
Credit Points: 12

CSN310 PARALLEL PROCESSING
The modelling of parallel systems and the design methodologies used in their construction; examination of a range of applicable software systems and methodologies; the formal analysis of concurrent systems is based on the theory of communicating sequential processes.
Prerequisite: CSN210
Credit Points: 12 **Contact Hours:** 3 per week

CSN320 FORMAL SECURE SYSTEMS
The formal mechanisms required in the design of secure systems; study of formal models of secure systems, eg. Bell La Padula model; the relationship between formal methods of computer science and the design of formally verifiable computer systems.
Prerequisite: ITN502
Credit Points: 12 **Contact Hours:** 3 per week

CSN330 NATURAL LANGUAGE PROCESSING
An important specialisation within the field of artificial intelligence and its applications.
Prerequisite: An introductory subject in natural language processing.
Credit Points: 12 **Contact Hours:** 3 per week

CSN340 COMPILER LABORATORY
In-depth treatment of topics of contemporary translator construction in a practical setting; code generation methods for advanced computer architecture.
Prerequisite: CSN110
Credit Points: 12 **Contact Hours:** 3 per week

CSN350 ADVANCED GRAPHICS 1
Advanced level extension of the material in the undergraduate curriculum; the use of facilities provided by existing graphics systems.
Prerequisite: CSB321
Credit Points: 12 **Contact Hours:** 3 per week

CSN360 ADVANCED GRAPHICS 2
Specialised areas of computer graphics. Topics will be agreed between staff and students.
Prerequisite: CSN350
Credit Points: 12 **Contact Hours:** 3 per week

CSN370 SPECIAL TOPIC

Aspects of scientific interest at that time. See School noticeboards for further information.
Prerequisite: To be advised.
Credit Points: 12 **Contact Hours:** 3 per week

CSN380 NEURAL NETWORKS

The subject discusses the purpose, scope, and history of neurocomputing. It explores various models of artificial neurons and a number of learning rules for supervised and unsupervised learning. Pattern classifiers, associative and auto associative neural network arrays are treated.
Credit Points: 12 **Contact Hours:** 3 per week

CSN400 MAJOR PROJECT – PART 1

This subject comprises the first semester of a two-semester subject and enables students to pursue a specialised topic in greater depth than is possible in a single semester. Topics are to be decided by agreement between the student and a faculty member acting as supervisor.
Prerequisite: Completion of eight subjects of the Master of Applied Science (Computing).
Credit Points: 12 **Contact Hours:** 3 per week

CSN450 MAJOR PROJECT – PART 2

This subject forms the second half of the major project component of the Master of Applied Science (Computing) course, and is a continuation of the same topic commenced in CSN400.
Prerequisite: CSN400
Credit Points: 12 **Contact Hours:** 3 per week

CSP112 SOFTWARE PRINCIPLES

Study and 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.
Prerequisite: Completion of a qualifying PASCAL programming subject prior to entry to the course.
Credit Points: 12 **Contact Hours:** 3 per week

CSP211 SYSTEMS ARCHITECTURE & OPERATING SYSTEMS

Computer organisation; the nature and role 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 features, assemblers, compilers, loaders.
Prerequisite: CSP112
Credit Points: 12 **Contact Hours:** 3 per week

CSP212 LANGUAGES & LANGUAGE PROCESSING

Theory and practice of language processing; the design and recognition of small languages for command processors and other interactive programs; advanced data structures and algorithm design.
Prerequisite: CSP112
Credit Points: 12 **Contact Hours:** 3 per week

CSP213 SCIENTIFIC APPLICATIONS

Provides a thorough knowledge of FORTRAN and C, and teaches the solving of advanced scientific (eg, mathematical and engineering) problems.
Co-requisite: CSP112
Credit Points: 12 **Contact Hours:** 3 per week

CSP214 PROGRAMMING LANGUAGES & STRUCTURES

Continues the material introduced in the prerequisite subjects; the analysis of algorithms; the various styles of programming languages and the abstractions which they support.
Prerequisite: CSP112
Credit Points: 12 **Contact Hours:** 3 per week

CSP837 STRUCTURED PROGRAMMING

Extends the programming concepts introduced in MDP501; advanced topics in programming: functions; data abstraction; recursion, pointers; use of programming tool boxes.
Prerequisite: MDP501
Credit Points: 12 **Contact Hours:** 3 per week

CSP842 ARTIFICAL INTELLIGENCE

Overview of artificial intelligence research, its current and future impact on society: computer capabilities and the human mind; methods and techniques used in AI programming; overview of logic programming in PROLOG and PASCAL.
Prerequisites: MDP501 and CSP837
Credit Points: 12 **Contact Hours:** 3 per week

CSP843 COMPUTER GRAPHICS

Use of computer-generated graphics in education; examination and use of a selection of graphics packages running on microcomputers; programming for computer graphics.
Prerequisite: MDP501
Credit Points: 12 **Contact Hours:** 3 per week

CSP960 PROJECT WORK

Students, either individually or in small groups, undertake a substantial project relevant to the needs of industry and designed to give insight into industrial requirements. Each project is 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.
Prerequisites: Successful completion of all other core subjects of the Graduate Diploma in Computing Science.
Credit Points: 12

CSP970 PROJECT WORK A

Students, either individually or in small groups, undertake a substantial project relevant to the needs of industry and designed to give insight into industrial requirements. Each project is 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.
Prerequisites: Completion of at least half of the Graduate Diploma in Computing Science.
Credit Points: 12

CST390 COMPUTER PROGRAMMING 1

A first course on computers, including brief introductions to operating systems and utilities; design of algorithms and their implementation in a structural language.
Credit Points: 7 **Contact Hours:** 3 per week

CSX025 INTRODUCTION TO COMPUTERS

Overview of computer applications in business; computer hardware and software; input and output

devices; storage devices; business information systems; concepts of data processing; computers in society; introduction to microcomputers using application software packages.
Credit Points: 12 **Contact Hours:** 4 per week

CSX028 COMPUTER LANGUAGES
Advanced programming concepts and structures; further algorithm development; testing and debugging; inspection and walkthroughs; practical computer programming using appropriate languages.
Prerequisite: CSX025
Credit Points: 12 **Contact Hours:** 4 per week

CSX030 COMPUTER NETWORKS
Concepts of data communications; communications hardware; distributed processing issues; online systems using networking; back-up, recovery and security, design considerations, queuing and system timing; local area networks.
Prerequisite: CSX025
Credit Points: 12 **Contact Hours:** 4 per week

CSX031 SOFTWARE DEVELOPMENT
Introduction to commercial software engineering; structured design, development and testing techniques; advanced COBOL programming; data base programming.
Prerequisite: ISX026
Credit Points: 12 **Contact Hours:** 4 per week

CSX035 SOFTWARE PRINCIPLES
Problem solving and the computer; design of algorithm; program design; basic algorithms; introduction to data structures; testing and debugging; documentation; practical experience using appropriate programming language.
Credit Points: 12 **Contact Hours:** 4 per week

CUB101 ALTERNATIVE EDUCATION
Problems confronting conventional schooling; various modes of alternative educational which are available in early childhood education.
Credit Points: 8 **Contact Hours:** 2 per week

CUB102 LEGAL ISSUES & THE TEACHER
The nature of education law as it affects the teaching of children in the early and lower school; analysis of legal rights and obligations as these affect teachers, children and parents; custody and access; discrimination, school discipline, supervision and administration practices.
Credit Points: 8 **Contact Hours:** 2 per week

CUB210 INTRODUCTION TO EDUCATION
Introduction to teaching as a profession: distinguishing characteristics of particular educational settings; key practices associated with particular educational provisions; relationships with other professions and society; range of educational contexts; teaching in contemporary society. The nature of teaching: historical perspectives; qualities of teachers; relationships with children, parents and the community; service orientation; decision making. The teacher as observer and communicator: developing skills of observing, recording, interpreting and analysing; understanding the nature of interactions in a variety of educational settings; developing skills of effective communication. Reflecting on experiences: the meaning of being a reflective practitioner.
Credit Points: 20 **Contact Hours:** 4 per week

CUB211 TEACHING AS MANAGING LEARNING
Examination of the principles, procedures and implications of decision-making related to: the management of instruction; programs and evaluation; people; material and non-material resources; and classroom environments.
Prerequisite: CUB210
Credit Points: 8 **Contact Hours:** 3 per week

CUB212 TEACHERS AS CURRICULUM DECISION MAKERS
Analysis of state policies and curriculum frameworks to gain an understanding of the responsibility which teachers are expected to take with respect to curriculum development and school community involvement. Ways in which literature deals with curriculum decision-making. The social and political nature of curriculum decision making. The role of parents and other members of the wider community in curriculum decision-making and the development of skills necessary to facilitate a collaborative approach to curriculum and school development.
Prerequisite: CUB211
Credit Points: 12 **Contact Hours:** 3 per week

CUB280 EQUITY AS A CURRICULUM ISSUE
The notion of equity and development of principles whereby equity underpins teaching and curriculum planning. An understanding of the inclusive curriculum and specific strategies for planning and implementing the inclusive curriculum. Analysis of the specific needs and circumstances arising from gender, cultural background, disability and socio-economic background.
Credit Points: 8 **Contact Hours:** 3 per week

CUB281 NEGOTIATED STUDY IN TEACHING
Students identify a particular area within the teaching role which they would like to explore in more depth. This may be related to the career pathway they plan to take or the teaching and curriculum implications of a particular problem or specific teaching context in which they are interested. The lecturer determines if the student has the necessary prerequisite knowledge and skills to pursue the topic and determines a suitable program of reading. The lecturer meets with the student on a regular basis to discuss progress. The negotiated study may take the form of an investigative study within a particular school context.
Credit Points: 8 **Contact Hours:** 3 per week

CUB282 MANAGING EXCEPTIONAL CHILDREN
Teachers need to develop approaches, strategies, programs and modifications to develop an inclusive curriculum which enhances learning and fosters the abilities for all children. This subject is designed to refine education students' theories and practices related to the management of the diverse range of children found within the primary classroom. The focus of the subject is to provide an understanding of the range of exceptional children as well as develop essential knowledge and practices in classroom organisation, student motivation, curriculum modification processes and classroom management.
Prerequisite: CUB212
Credit Points: 8 **Contact Hours:** 2 per week

CUB301 INTRODUCTION TO CURRICULUM & TEACHING STUDIES

Integrates understandings derived in foundation Studies in Education subjects to develop a reasoned and contextually responsive framework for teaching. Considers communication and teaching skills and strategies in interactive teaching/learning settings and provides opportunities for observation, practice and critical reflection. Focuses attention particularly on the notion that teaching is about the facilitation of student learning.

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

CUB302 TEACHERS & SCHOOL PROGRAMS

Extends principles of professional practice established in Curriculum and Teaching Studies 1. Facilitates general studies of curriculum development and teacher decision making, with applied curriculum-area studies to follow in Curriculum and Teaching Studies 2. Gives emphasis to teaching in its broader contexts, encourages further development of a critically reflective approach to teaching and assists with the transition to beginning teaching.

Prerequisite: Curriculum and Teaching Studies 1
Co-requisites: Curriculum and Teaching Studies 2, EDB302
Credit Points: 12 **Contact Hours:** 3 per week

CUB320 EDUCATION, LAW & THE BEGINNING TEACHER

Legal literacy and education; sources of education law; legislative and common law; students' rights and responsibilities; students, schools and law; parents and their legal responsibilities in relation to education; teachers rights and duties; teachers and school-related accidents; drugs and alcohol; discrimination and human rights procedures; education malpractice.

Credit Points: 12 **Contact Hours:** 3 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. It relates the significance of curriculum in the broader sense to a spectrum of individual professional teaching perspectives.

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

CUB411 EVALUATION IN CURRICULUM DEVELOPMENT

Students are introduced to the basic concepts of evaluation as they relate to the process of decision making in a school setting. Strategies appropriate to all school settings are considered ranging from school development to classroom teaching. Design, data gathering strategies and report writing are considered.

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

CUB413 CURRICULUM, MAKING IT HAPPEN AT SCHOOL

Development of understandings and skills in implementing curriculum programs in specific school settings; indepth study of the literature and reflection on practice and experience; the practical application of specific approaches and strategies for effective curriculum implementation.

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

CUB414 ADULT EDUCATION

The design and implementation of educational programs for adults. The study is based on theories relating to adults as educational participants, the educational process and the environment in which it takes place. Emphasis is on the provision of effective adult education.

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.

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.

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

CUB433 TEACHING STRATEGIES

Evaluation of the student's teaching strategies; examination of the literature on teaching strategies; critical evaluation of strategies/models of teaching available.

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

CUB434 SUPERVISION OF TEACHING

This subject is designed to cater for teachers who wish to improve their teaching by using the process of clinical supervision. It is also designed to help teachers who supervise practice teaching, and school administrative staff, to improve their supervisory skills. The process of clinical supervision is explored and applied as a means of achieving these objectives. Students must be active supervisors.

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

CUB441 INTERNATIONAL EDUCATION FIELD STUDY

The purpose of international education studies and a field study to a particular society is this subject's focus. Key questions concern social context and priorities and curricula of that society. Australian curriculum is also introduced. The subject involves an international field study – two weeks within a vacation period.

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. Includes issues for administrators in various educational settings.

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.

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.

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

CUB445 COMMUNITY RESOURCES & SCHOOL CHANGE

This subject aims to help participants to identify and develop strategies for working with a wide range of community groups. An indepth study is made both of the educational potential of different groups and ways that they can be better involved in helping schools to improve their offerings.

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

CUB490 INTRODUCTION TO CURRICULUM CONSTRUCTION

Curriculum terminology and theory; the key elements of a curriculum; the pressures or influences that affect decision making; the process of curriculum development; school-based curriculum development and innovation.

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

CUP420 PROFESSIONAL & CURRICULUM STUDIES 1

Applications of planning, implementation and evaluation strategies to the teaching of expressive arts. Observe, apply and reflect upon theoretical and practical relationships with classroom instruction, control and organisation.

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

CUP421 PROFESSIONAL & CURRICULUM STUDIES 2

Integration of curriculum theory, appreciation of its use in social, environmental, health studies and science in the primary school curriculum. Observation and application of curriculum theory in the primary school curriculum. Observation and application in the school setting.

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

CUP500 CURRICULUM: LEARNERS WITH SPECIAL NEEDS

Introduction to curriculum development and situational/self analysis; innovative program approaches; changing ourselves and school environments; evaluation of curriculum development; resource teacher support for school-based curriculum development, student assessment, participation and equity programs; communicating information about improved programs.

Credit Points: 10 **Contact Hours:** 3 per week

CUP501 CURRICULUM FOUNDATIONS

Examination of the personal and generic theories of curriculum practice, and the foundations for teachers and consultants to develop a framework for curriculum thinking and decision making which emerges from contemporary curriculum theory related to their subject specialisation.

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

CUP502 CURRICULUM DEVELOPMENT & INNOVATION

The application of the curriculum development process in specialist teaching areas; the process of innovation and change appropriate for particular educational settings. Frameworks and skills for evaluating existing programs, and the implementation and outcomes of innovation.

Prerequisite: CUP501

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

EAB102 HUMAN RELATIONSHIPS IN EARLY EDUCATION

Fundamentals of interpersonal communication; the self in interpersonal communication; verbal and non-verbal behaviour; listening and feedback in interpersonal communication; interpersonal relationships; and group processes.

Credit Points: 8 **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.

Prerequisite: LEB240

Credit Points: 8 **Contact Hours:** 2 per week

EAB104 EARLY CHILDHOOD TEACHERS & FAMILIES

Teachers in early childhood settings interacting with children and their families; examination of collaborative relationships between teachers and parents; resources to support parents; research findings on parental roles in development of young children; creating welcoming and informal atmospheres in early childhood centres; home visiting techniques; evaluating family involvement.

Credit Points: 8 **Contact Hours:** 2 per week

EAB105 EARLY CHILDHOOD EDUCATION CONTEXTS

Exploration of childhood services; relationships of early childhood services to Australian and overseas contexts; implication of beliefs for practice in early childhood education; the early childhood teacher as an agent for empowering parents and their children.

Credit Points: 8 **Contact Hours:** 2 per week

EAB111 EARLY CHILDHOOD CURRICULUM APPROACHES

Overview of integrated curriculum approaches; curriculum in the social context; developmentally-appropriate practice; developing young children's understandings of mathematics and science concepts; developing young children's language understandings and use. Focus on preschool and kindergarten contexts.

Prerequisite: CUB210

Credit Points: 12 **Contact Hours:** 3.5 per week

EAB112 INTEGRATED CURRICULUM FOR 3-5 YEAR OLDS

Total program planning and implementation in kindergarten and preschool settings; extension of pedagogical content to an advanced level; philosophy; alternative curriculum models; knowledge of child development in practical curriculum decision-making; integration across content areas; working with parents and members of the community.

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

EAB113 INTEGRATED ROUTINES & LEARNING FOR UNDER 3s

Practical aspects of providing physical care and nutrition for young children; individualised quality care for young children (basic trust, bonding, attachment);

adults as responsive, sensitive, interactive partners; creating a safe, stimulating and supportive environment (space, resources, time, health and nutrition); the importance of the contribution of all adults involved with children aged birth to three years.
Credit Points: 12 **Contact Hours:** 3 per week

EAB121 EARLY CHILDHOOD CURRICULUM: MATHEMATICS

Observed learning patterns used as a basis for reflection about developmentally appropriate planning for young children; selection of appropriate resources and tasks for individuals and small groups; how young children develop the concept of number; the range of learning processes to be fostered; the concept of number, traditional and new approaches to sequencing for effective learning about numbers.
Credit Points: 8 **Contact Hours:** 3 per week

EAB122 EARLY CHILDHOOD CURRICULUM: LANGUAGE & LITERACY

The variety of teaching and learning theories in language development and literacy education; the role of the teacher in developing classroom practices within the context of learning environments which are meaningful, purposeful and relevant; teaching strategies for promoting children's language and communication; scaffolding children's efforts to become independent and successful users of language for thinking, learning and communicating.
Prerequisite: EAB111
Credit Points: 8 **Contact Hours:** 3 per week

EAB123 EARLY CHILDHOOD CURRICULUM: VISUAL ARTS

The value of the visual arts for young children; how children develop and learn through the visual arts; learning processes which are involved in children's creative, imaginative, symbolic and fine-motor development and activity; an analysis and comparison of various art media and the way in which these are used by children; criteria for selecting art experiences and the ways in which these may be planned, sequenced, implemented and evaluated; teaching styles responsive to children; ways in which to facilitate visual arts development within children at various stages.
Credit Points: 8 **Contact Hours:** 3 per week

EAB124 EARLY CHILDHOOD CURRICULUM: DRAMA & SOCIAL EDUCATION

The value of play for young children, particularly in relation to self image and social understanding; using knowledge of child development and learning and observations of children to plan, implement and evaluate learning environments which focus on play, drama and social education; learning processes which are involved in children's creative, imaginative, symbolic and interactive behaviour; comparison and analysis of socio-dramatic play, experiential drama and presentational drama; principles of child-centredness; the teacher's role.
Credit Points: 8 **Contact Hours:** 3 per week

EAB125 EARLY CHILDHOOD CURRICULUM: MUSIC & MOVEMENT

Music and movement as a fundamental way of learning and knowing for young children; the child-centred music learning environment; experience within the creative process itself; development of sensitivity to sounds and movement, and their interaction; understanding the basic concepts of musical and movement elements, their combination and manipulation; acquisition of the simple skills, teaching techniques and curriculum principles which allow the child to operate as a creative musician and mover; and the development of positive attitudes toward music, movement and the self.
Credit Points: 8 **Contact Hours:** 3 per week

EAB126 EARLY CHILDHOOD CURRICULUM: SCIENCE/HEALTH EDUCATION

The organisation of physical and interpersonal environments which support young children's natural enquiry activity in the sciences; ways in which early childhood environments can be organised to support active, enquiry learning; varied and relevant resources for the content of biological, social and physical sciences; the immediate classroom, the outdoors and the local neighbourhood and the social, cultural and physical features of these environments.
Credit Points: 8 **Contact Hours:** 3 per week

EAB127 EARLY CHILDHOOD CURRICULUM: MATHS, SCIENCE, LITERACY

Drawing on previous knowledge about curricula in mathematics and science to study how the teacher prepares learning environments for children in lower primary grades; using content knowledge in concert with the needs of individual children in culturally relevant ways; development of learning centres and associated methods characteristic of environments that foster active, enquiry learning. Programming for teaching/learning environments; the role of language in learning; developing language in all curriculum areas in the lower primary classroom; evaluation of programs and assessment and reporting of children's development in literacy.
Prerequisites: EAB121, EAB122
Credit Points: 12 **Contact Hours:** 3 per week

EAB141 PHYSICAL, PERCEPTUAL & MOTOR ASPECTS: B-8 YEARS

Physical development (prenatal factors, growth patterns and changes in body systems, effects on maturation, phylogenetic and ontogenetic aspects); perceptual development: visual, auditory, tactile-haptic, kinesthetic and vestibular and the degree of sensitivity and organisation of these systems; motor development: theoretical perspectives, phases and patterns, factors affecting development, implications for programming and instruction; observation techniques: observing, recording, analysing, applying.
Credit Points: 8 **Contact Hours:** 2 per week

EAB142 LANGUAGE & COGNITIVE ASPECTS: B-8 YEARS

Part A: Theories of language development; language and cognitive development; early syntax and the development of speech and morphology; functions of children's language and communication; communication with children. Part B: Broad theoretical/historical/definition overview on cognition and cognitive development; knowledge and how it arises and grows; how knowledge is maintained; generalisation and differentiation of knowledge; making cognitive connections; the role of experience/environment/culture and maturation/heredity in cognitive development.
Credit Points: 8 **Contact Hours:** 2 per week

EAB143 SOCIAL, EMOTIONAL & CREATIVE ASPECTS: B-8 YEARS

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.
Credit Points: 8 **Contact Hours:** 2 per week

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; interpretation and evaluation of individualised programs and teaching strategies; management of behaviour; family dynamics and parental needs.
Credit Points: 8 **Contact Hours:** 2 per week

EAB151 TEACHING STRATEGIES 1: BEFORE-SCHOOL SETTINGS

Understanding the planning-implementing-evaluating cycle; managing learning environments; facilitating children's development, learning through the physical environment and the human environment; strategies to support children's exploration, problem solving and communication. Twelve days teaching experience in a child care, kindergarten or preschool setting.
Prerequisite: CUB210
Credit Points: 12 **Contact Hours:** 2 per week

EAB152 TEACHING STRATEGIES 2: YEARS 1-3

Understanding the primary school; planning, implementing and evaluating the curriculum in the early primary years; becoming familiar with current syllabus documents; responding to individual children and monitoring their progress; organisation for learning; reflecting and commenting on a personal teaching style. Twelve days practice teaching experience in an early primary setting.
Prerequisite: EAB151
Credit Points: 12 **Contact Hours:** 2 per week

EAB153 TEACHING STRATEGIES 3

Discussion and study of a range of themes and issues relevant to working with young children in learning environments for 3 to 5-year-old children; role of the teacher, environments and interactions; introduction to programming; negotiation approach to allow students to form their studies in a selected context of early childhood education and care. Twenty-four days in two of three settings: child care, kindergarten or preschool.
Prerequisite: EAB152
Credit Points: 12 **Contact Hours:** 2 per week

EAB154 TEACHING STRATEGIES 4: CHILD CARE

Monitoring and reporting on children's progress; managing children's behaviour, developing a personal philosophy; integrating across content areas; advanced data gathering techniques for teachers. A negotiation approach allows students to focus their studies in the selected context of early childhood education of child care. Eighteen days teaching practice in a child care centre.
Prerequisite: EAB153
Credit Points: 12 **Contact Hours:** 2 per week

EAB155 TEACHING STRATEGIES 4: KINDERGARTEN/PRESCHOOL

Monitoring and reporting on children's progress; managing children's behaviour; developing a personal philosophy; integrating across content areas; advanced data gathering techniques for teachers. A negotiation approach allows students to focus their studies in the selected context of early childhood education of kindergarten. Eighteen days teaching practice in a child care centre.
Prerequisite: EAB153
Credit Points: 12 **Contact Hours:** 2 per week

EAB156 TEACHING STRATEGIES 4: YEARS 1-3

Monitoring and reporting on children's progress; managing children's behaviour; developing a personal philosophy; integrating across content areas; advanced data gathering techniques for teachers. A negotiation approach allows students to focus their studies in the selected context of early childhood education of P-3. Eighteen days practice in an early primary school setting.
Prerequisite: EAB153
Credit Points: 12 **Contact Hours:** 2 per week

EAB157 TEACHING STRATEGIES 5

Preparing for a teaching career; teacher as professional practitioner; ethical and legal issues; administration and leadership; career paths in early childhood education; advocacy; government policies for families and education; common and specialised studies across the full range of early childhood education and care services. Twenty days teaching practice in a child care, kindergarten, preschool or years 1-3 setting.
Credit Points: 12 **Contact Hours:** 3 per week

EAB160 ESL IN EARLY CHILDHOOD SETTINGS

The nature and functions of language; grammar of English from a teaching/learning perspective, particularly in relation to English learners; fundamental principles and procedures underlying a communicative approach to teaching English as a second language; teaching specific language skills; evaluation and assessment.
Credit Points: 8 **Contact Hours:** 2 per week

EAB161 CULTURAL INCLUSIVITY IN EARLY CHILDHOOD

Aspects of diverse disciplines and the emergent common principles, aims, objectives and practices that enhance the development of the professional; culturally inclusive practices; cultural bias; criteria for evaluating resources and curricula; the range of theory that cultural inclusivity takes into account across the disciplines: sociology, multicultural studies, aboriginal studies, gender studies and early childhood education and history.
Credit Points: 8 **Contact Hours:** 2 per week

EAB162 EDUCATION FOR TRANSFORMATION – EC TEACHERS

What society values as important knowledge for all humans; how these values are expressed and reflected in parental and teacher practices in the early years of a child's life; the forces, beliefs and practices in society and school which cause teachers and students

to feel alone, worthless and powerless; vital philosophical, social and practical knowledge for human welfare; how teachers can encourage transformation through curriculum development and interpersonal school and classroom interaction.
Credit Points: 8 **Contact Hours:** 2 per week

EAB163 GRAPHIC MEDIA FOR EC TEACHERS

The planning, production and teaching uses of a range of graphic visual media with emphasis on the skills involved in the production of handouts, newsletters, laminated board games, charts and displays; the planning and production of a range of these resources; specific skills in the selection of resources for specific situations; layout, lettering, cut and paste techniques, incorporation of photographic materials, and the operation of appropriate mechanical devices including copiers, duplicators and computers. Assessment is through evaluation of work produced during the semester.
Credit Points: 4 **Contact Hours:** 2 per week

EAB164 EARLY CHILDHOOD CHORAL & PERCUSSION ENSEMBLE

Development of choral singing and percussion playing skills relevant to both recreational and classroom situations; application of Orff philosophies, techniques and tools; some development of musical literacy.
Credit Points: 4 **Contact Hours:** 2 per week

EAB165 PROGRAMS FOR CHILDREN UNDER THREE YEARS

Societal attitudes and public policy in the care and education of children under three years of age, historically and cross-culturally; research supporting the importance of infancy in influencing later development; centre-based and family day care programs for infants and toddlers in Australia and overseas; the functioning of parent-child centres and playgroups in which participation of parents, their families and toddlers occurs; programs which aim to identify and help overcome physical, emotional, intellectual and socio-economic handicapping circumstances.
Credit Points: 8 **Contact Hours:** 3 per week

EAB166 SPECIAL PROGRAMS FOR YOUNG CHILDREN

Meeting particular needs of young children through special programs; procedures for setting up, obtaining funding, assessing needs, formulating objectives, devising programs, evaluating outcomes of programs including those for isolated children, socially disadvantaged children and culturally different children.
Credit Points: 4 **Contact Hours:** 3 per week

EAB167 CHILDREN'S LITERATURE FOR EARLY CHILDHOOD SETTINGS

The significance of children's literature as it increasingly influences the content of literacy and language programs; origins and antecedents of stories as they reflect society; critical evaluation of books being produced nationally and internationally; acquisition of skills of selection for use in early childhood settings; planning quality long-term literature programs for children in early childhood settings.
Credit Points: 8 **Contact Hours:** 3 per week

EAB168 DRAMA FOR SPECIAL CHILDREN

Drama as a method of facilitating learning through available resource materials; observing, planning for and teaching children with special needs; matching activities to positive abilities; evaluation of outcomes.
Credit Points: 8 **Contact Hours:** 2 per week

EAB169 CHILD CARE POLICIES

Rights and responsibilities of parents and the community in child rearing; past and current factors affecting child rearing needs within society; overview of the political and economic influences on child care in the past; current policies, regulations, funding sources and issues of quality; factors influencing high quality care, such as staffing, building and furnishings.
Credit Points: 4 **Contact Hours:** 2 per week

EAB170 MICROCOMPUTERS IN EARLY EDUCATION

The possibilities of using microcomputer technology with young children; skills and methods of working with young children and computers; developing individual programs that are appropriate for young children.
Credit Points: 8 **Contact Hours:** 2 per week

EAB171 MANAGEMENT OF EARLY CHILDHOOD SERVICES

General management theory and practice; organisation and leadership styles; management of various early childhood services; setting policies and planning for services; completing financial matters; implementing day to day tasks and operations; managing and working with people; considering ethical issues and conduct; working outside early childhood services; advocating for early childhood.
Prerequisite: CUB210, EAB111
Credit Points: 4 **Contact Hours:** 2 per week

EAB172 PARENT-PROFESSIONAL RELATIONSHIPS IN EC SETTINGS

Philosophy, principles and practices in a number of models of parent-professional interactions; examination of needs, roles, relationships and results of some exemplary programs; examination of specific local parent-professional programs (framing questions, carrying out enquiries) on the aims, functioning and outcomes of local programs involving parents and professionals.
Prerequisite: EAB104
Credit Points: 8 **Contact Hours:** 2 per week

EAB174 PROJECTED VISUAL MEDIA IN EC SETTINGS

The production and teaching use of projected media with emphasis on slide/filmstrip resources and overhead projection; planning and producing a range of these resources; specific skills in determining appropriate resources for specific situations; planning procedures and production techniques, foiling, titling, incorporation of graphic images and overlays; mechanical reproduction techniques including photo and thermal copiers. Assessment is through self evaluation of work produced during the semester.
Credit Points: 4 **Contact Hours:** 2 per week

EAB175 EARLY CHILDHOOD NUTRITION PLANNING

Nutrition policies for early childhood services; management of health and nutrition components within early childhood services; planning early childhood health and food education for children and staff.
Credit Points: 4 **Contact Hours:** 2 per week

EAB176 MEDIA FOR EARLY CHILDHOOD TEACHERS

Examination of media selection, use and evaluation; integration of learning through media; planning and production in areas of graphics, audio, projected and

photographic media and television; development of media for early childhood teaching situations.
Credit Points: 8 **Contact Hours:** 2 per week

EAB180 DANCE EDUCATION FOR YOUNG CHILDREN

Study of alignment and physiology of young bodies; increasing movement awareness for children through games and simple dance structures.
Credit Points: 8 **Contact Hours:** 2 per week

EAB181 TECHNOLOGY IN EARLY CHILDHOOD CONTEXTS

A school-based elective involving work with young children in small groups with calculators, computers and other technology.
Credit Points: 8 **Contact Hours:** 4 per week

EAB182 KEYBOARD MUSICIANSHIP 1 & 2 (EC)

Keyboard majors: practical classes in accompanying other students; keyboard technique; sight reading in a variety of keyboard styles; basic improvisation skills, including harmonisation of melodies. Required performance/theory background. Continues into second semester.
Credit Points: 8 **Contact Hours:** 2 per week

EAB280 EARLY CHILDHOOD 1

Examination of historical trends in both Europe and America which have affected early educational trends. Investigation of educational changes and dilemmas and the impact of other disciplines on early education such as medicine and psychology. Recurrent themes of early childhood education are examined in the context of the types of programs now offered to young children.
Credit Points: 8 **Contact Hours:** 3 per week

EAB281 EARLY CHILDHOOD 2

Combination of the theoretical underpinnings of child growth and development in a range of interdisciplinary settings for children from three to eight years with the practical application of a child study. This subject provides the students with the opportunity to develop skills as observers in a range of settings in order to see and record what is happening as accurately and objectively as possible to increase their understanding of child behaviour and development. This subject provides the opportunity to interpret the observational data in a range of educational settings.
Prerequisite: LEB241
Credit Points: 12 **Contact Hours:** 3 per week

EAB282 EARLY CHILDHOOD 3

In this subject student teachers compare and contrast similarities and differences in early childhood environments with teaching in other educational environments. The teacher's role in the classroom and outside the classroom is explored. Students are encouraged to examine their own personal qualities through self-awareness activities and to confront their attitudes and biases as they explore teaching practices that are developmentally appropriate. Students draw on concepts from psychology and sociology in undertaking these tasks.
Prerequisite: EAB281
Credit Points: 12 **Contact Hours:** 3 per week

EAB283 EARLY CHILDHOOD EDUCATION

The issue of developmentally appropriate practice in early childhood education is investigated for all areas of a child's development through an integrated approach. Appropriate curriculum planning based on teacher's observations and recordings of each child's special interests and developmental progress. Curriculum planning as an interactive process is a focus of the subject.
Prerequisite: CUB211
Credit Points: 8 **Contact Hours:** 3 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.
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.
Credit Points: 12 **Cnntact Hours:** 3 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.
Prerequisite: Relevant studies at Diploma of Teaching level.
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; analysis of the psychosocial and cultural perspectives of development and learning in the early childhood years; and ecological analysis of early childhood settings impacting on children's development and learning.
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.
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.
Credit Points: 16

EAB503 TEACHING STRATEGIES FOR CHILD CARE

Understanding 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.
Credit Points: 16

EAB504 PROGRAMS & TEACHING STRATEGIES FOR CHILDREN UNDER THREE 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.
Credit Points: 16

EAB505 LEARNING TEACHING & INTEGRATED CURRICULUM FOR 3-5 YEARS

Language and cognitive development; communication with children; early mathematics and science concepts, making cognitive connections; total program planning implementation and evaluation; integration across content areas involving parents and community.
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.
Credit Points: 16

EAB507 EARLY CHILDHOOD LEADERSHIP & MANAGEMENT IN THE SOCIOCULTURAL CONTEXT

Administration and management of early childhood services; becoming and being a leader; 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, their planning and communication.
Credit Points: 16

EAB508 FIELD PROJECT (CHILDREN 0-12 YEARS)

Analysis of 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.
Credit Points: 16

EAN601 EARLY CHILDHOOD CURRICULUM: DESIGN ISSUES

Key concepts and themes in the development of early childhood curriculum; processes associated with decision making of early childhood teachers; critical analysis of early childhood curriculum theorising; examination of research methods used to study curriculum and teacher's application of knowledge bases.
Credit Points: 12 **Contact Hours:** 3 per week

EAN602 EARLY CHILDHOOD SERVICES & POLICIES

Analysis of early childhood services from a social, political and cultural context; knowledge of the range of early childhood services for families and children in contemporary Australia; key issues affecting the development of these services, critical analysis of current policies.
Credit Points: 12 **Contact Hours:** 3 per week

EAN603 RESEARCH SEMINAR IN EARLY CHILDHOOD ISSUES

Development of skills for critical evaluation of research in early childhood issues; knowledge of methodological approaches; skills for a pilot study or review of selected research issues in early childhood; critical discussion of implications of research for early childhood education; knowledge of broad research issues regarding child development, family, education and care contexts and interventions.
Credit Points: 12 **Contact Hours:** 3 per week

EAN604 YOUNG CHILDREN, FAMILIES & COMMUNITY

Analysis of the interactions between children, families and the wider social and cultural community in the past, present and future; key issues facing families within community contexts; application of research findings to the analysis of transactions involving children, families and community; aspects of family diversity (class, ethnicity, structure); professionals and families.
Credit Points: 12 **Contact Hours:** 3 per week

EAP410 SOCIAL, EMOTIONAL & PHYSICAL DEVELOPMENT (0-9)

Introduction to the major theories, processes and features of development and learning of children 0-9 years in the physical, perceptual, motor and social-emotional domains; application of this knowledge to planning for children's needs, interests and abilities.
Credit Points: 8 **Contact Hours:** 3 per week

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; teaching-learning approaches and processes; teaching-learning approaches and strategies for language and literacy in early childhood programs.
Credit Points: 8 **Contact Hours:** 3 per week

EAP412 THINKING & PROBLEM SOLVING 1

The processes of interest in active learning, enquiry and problem solving; environments and strategies which promote the development of active learning and enquiry by young children; monitoring individual progress.
Credit Points: 8 **Contact Hours:** 3 per week

EAP413 PROGRAM PLANNING & TEACHING STRATEGIES 1

Overview of the role of the early childhood teacher; the human communication process in relation to teaching in different early childhood settings; decision making; guidelines for short-term planning to meet individual and group needs; teaching and learning styles and strategies; theories of motivation, management and guidance relating to the physical, intellectual and socio-emotional aspects of the development of young children; effective use of time, space and resources.

Credit Points: 8 **Contact Hours:** 3 per week

EAP414 SOCIOCULTURAL CONTEXTS OF EDUCATION

The social context of education; social inter-relationships which define this context; the impact of diversity in family structures; child rearing patterns; alterations to family roles; educational practices which respond to sociocultural contexts.

Credit Points: 8 **Contact Hours:** 3 per week

EAP415 COGNITION & LANGUAGE (0-9 YEARS)

Review and analysis of current knowledge of the processes and features of cognitive and language development and learning of children 0-9 years; analysis of observational data on children's behaviours in terms of current theoretical understanding and using such analyses for planning to meet children's needs, interests and abilities.

Credit Points: 8 **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.

Credit Points: 8 **Contact Hours:** 3 per week

EAP417 THINKING & PROBLEM SOLVING 2

The child as explorer, problem solver and meaning maker; organising for active learning, enquiry and problem solving; linking home and early childhood educational environments.

Credit Points: 8 **Contact Hours:** 3 per week

EAP418 PROGRAM PLANNING & TEACHING STRATEGIES 2

Continuation of EAP417.

Prerequisite: EAP413

Credit Points: 8 **Contact Hours:** 3 per week

EAP419 TEACHING IN CONTEMPORARY SOCIETY

The implications of social change for early childhood programs; historical, philosophical and sociological perspectives on change in contemporary society; technological developments; demographic changes in urban and rural settings; ethical and legal issues affecting teachers.

Credit Points: 8 **Contact Hours:** 3 per week

EAP520 EARLY CHILDHOOD DEVELOPMENT & LEARNING

Examination of techniques for observing and analysing child behaviour; overview of major theories of development and learning; cognitive, social/emotional, language, physical development and learning in children 2-9 years.

Credit Points: 8

EAP521 EARLY CHILDHOOD EDUCATION 1

Examination of the development of problem solving, explanation, investigation, self-expression, originality, divergent thinking, and risk-taking in young children in relation to communication, movement and the expressive arts; analysis of teaching strategies.

Credit Points: 12

EAP522 EARLY CHILDHOOD EDUCATION 2

Examination of teaching strategies, incorporating problem solving through exploration and investigation, for studying mathematics, science, social studies and health curriculum. The emphasis is on approaches and suitable materials for these curriculum areas within various early childhood settings.

Credit Points: 12

EAP523 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.

Credit Points: 8

EAP524 RESEARCH IN EARLY CHILDHOOD

Examination of the research literature in development and learning; research techniques in early childhood; application of research techniques in early childhood; 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.

Prerequisite: EAP520

Credit Points: 8

EAP525 EARLY CHILDHOOD PROGRAM PLANNING

Planning and evaluating early childhood programs for children 3 to 8 years; organisation and administration of programs for young children; examination of approaches to teaching; early intervention programs; inter-disciplinary teamwork and support services; strategies for working with parents and community agencies; professional behaviour and ethics.

Credit Points: 12

EAP526 EARLY CHILDHOOD EDUCATION 3

Critical evaluation of 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.

Credit Points: 12

EAP527 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.

Prerequisite: EAP523

Credit Points: 8

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, and the approaches which underpin philosophical and professional practice.

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

EAP552 FROM PLAY TO DRAMA IN EARLY CHILDHOOD EDUCATION

An analysis of the developmental relationship that exists between children's play and drama in early childhood, children's language development through drama; and the synthesis of theories/approaches and methods in drama contexts.

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.

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.

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

EDB251 PRACTICE TEACHING 1

Introduction to teaching at the classroom level. Central to the subject are carefully guided observations as preparation for the implementation of teaching/learning segments. These lesson segments are prepared for fully with assistance from the classroom supervisor. Additionally, the students are involved in assisting, where possible with the work of the classroom to obtain an overview of the class teacher's duties.

Credit Points: 8

EDB252 PRACTICE TEACHING 2

The theoretical background gained from the foundational subjects in the area of learning and development and from applied curriculum areas forms the basis of the knowledge and skills applied in this subject. It is envisaged that further observation, analysis and critical reflection be fostered in students' trial of theories of teaching. Students' planning and implementation skills are carefully developed and evaluated under the supportive and collaborative teamwork of supervising teacher, principal and university supervisor.

Prerequisite: EDB251
Credit Points: 8

EDB253 PRACTICE TEACHING 3

This school experience should challenge students to further develop and exhibit an awareness of reflective and analytic positions concerning curriculum, and teaching and learning within another context. Students should effectively be able to examine principles, procedures and implications of decision making related to management and development of instruction and class environments. Further understanding of programs and evaluation, material and non-material resources in relation to classroom planning should assist students to be more effective managers of learning.

Prerequisite: EDB252
Credit Points: 8

EDB254 PRACTICE TEACHING 4

During this four-week period in schools, students extend their involvement to include periods of continuous teaching. Additionally, the experience widens to encompass both the school and community domains. Wider contexts e.g. small schools are also considered appropriate venues for practical experience in this semester. Students also have the opportunity to implement the knowledge and skills gained in major study areas. Finally, other practical experiences e.g. attendance at P & C meetings is required.

Prerequisite: EDB253
Credit Points: 12

EDB255 PRACTICE TEACHING 5

For the four-week period of school experience, students prepare the curriculum program. Selected parts of the program are implemented during weeks 1 & 2, and for the second half of the practice the full program is taught. Additionally, students involve themselves in other activities within the school and community domains. Finally, throughout the semester, other practical activities are undertaken. Practice in appropriate settings is arranged for students in major study areas.

Prerequisite: EDB254
Credit Points: 12

EDB301 PRACTICE TEACHING 1

Twenty-one days of secondary school/teaching experiences in which observational skills and knowledge gained from discipline and professional studies are applied to planning, resourcing, implementing and evaluating short sequences of classroom activities and lessons. The program aims to develop confidence and competence in generic teaching/learning strategies, management and resource skills, interpersonal and professional relationships.

Credit Points: 8

EDB302 PRACTICE TEACHING 2

Participation in a 40-day practicum that prepares students for beginning teaching in at least one secondary curriculum area. Students assume responsibility for the learning programs of their 'own' classes, employing appropriate planning, researching, managing, collegial and teaming skills needed in the interactive classroom and in the wider school community.

Credit Points: 12

EDB303 PRACTICE TEACHING 3

Twenty-day practicum aimed at upgrading and extending professional and generic teaching skills, exploring 'coal-face' innovations and current curriculum initiatives, and understanding in greater depth the school in its wider societal context. This is the final opportunity for students to develop skills so far under emphasised in their school experiences, but which are of vital importance to become reflective practitioners.

Credit Points: 8

EDB440 INDEPENDENT STUDY

Self-initiated and self-directed study in an area of interest which allows study either to a depth not possible in electives, or in an area not covered by the current Bachelor of Education program. An independent study can be taken by any student who has completed, or will have completed, four subjects of

the BEd but must meet certain requirements laid down in the 'Independent Study Guide' available from the Faculty of Education. Application forms are also available from the Faculty of Education – telephone (07) 864 3503. Students cannot enrol in this subject without the written approval of their proposed study by the Independent Study Committee.
Credit Points: 12 **Contact Hours:** 3 per week

EDB441 EDUCATIONAL RESEARCH & PRACTICE
Introduction to educational research and practice; preparing for research; data collection techniques applicable to either quantitative or qualitative research methodologies; analysis and interpretation of evidence; reporting.
Credit Points: 12 **Contact Hours:** 3 per week

EDN600 RESEARCH METHODS IN EDUCATION
Development of an awareness and understanding of the research process for an historical, sociocultural, 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 critical to particular fields of interest.
Co-requisite: EDN601
Credit Points: 12 **Contact Hours:** 3 per week

EDN601 MAJOR ISSUES IN EDUCATION
Three modules to identify some major issues in an education system undergoing profound change; policy module analyses the major political forces shaping the education system; learning module focuses on cognitive development and the development of human information processing; context module situates learning and education in the broader social context.
Co-requisite: EDN600
Credit Points: 12 **Contact Hours:** 3 per week

EDN602 ADVANCED SEMINARS
Opportunities for students to participate in a special subject organised around a particular interest, or a visiting expert.
Credit Points: 12 **Contact Hours:** 3 per week

EDN603 INDEPENDENT STUDY
Opportunity to study an aspect or topic in a particular specialisation of special interest to students; working autonomously under the supervision of a lecturer.
Credit Points: 12 **Contact Hours:** 3 per week

EDN604 DISSERTATION
Opportunity to extend and synthesise knowledge from the core and specialisation subjects in either a critical evaluation of a topic in the literature of one specialisation or the development of appropriate educational resources.
Credit Points: 24 **Contact Hours:** 3 per week

EDN605 DISSERTATION
A study to synthesise and apply knowledge from the core and specialisation subjects that will focus on only one issue, involve only the necessary number of clients, and include only essential research activity.
Credit Points: 36 **Contact Hours:** 3 per week

EDN606 DISSERTATION
An application of coursework theory to a literature survey, a critical analysis, an evaluation of a portion of an educational program or the development of a curriculum package.
Credit Points: 48 **Contact Hours:** 3 per week

EDP410 PRACTICE TEACHING 1
Participation in two early childhood settings for 24 days (12 days in each setting). Emphasis on observation, planning, implementing, evaluating and record-keeping.
Credit Points: 8

EDP411 PRACTICE TEACHING 2
Participation in two childhood settings for 32 days (16 days in each setting). Emphasis on observation, planning, implementing, evaluating, administration, parent programs and record-keeping.
Prerequisite: EDP410
Credit Points: 8

EDP412 PRACTICE TEACHING 1
Orientation to the primary school. Planning, implementation and lesson closure: teaching tasks of increasing complexity from micro-teaching to full-scale responsibility for planning, implementing, closing a lesson. Development of initiative and individuality in lesson and unit planning and implementation.
Credit Points: 8 **Contact Hours:** 4 weeks

EDP413 PRACTICE TEACHING 2
Utilisation of knowledge gained from indepth contextual studies and curriculum and professional studies. Emphasis is given to school and community domains in preparation for beginning teaching.
Prerequisite: EDP412
Credit Points: 8 **Contact Hours:** 4 weeks

EDP450 TEACHING PRACTICE A
This subject allows students in school settings to plan, resource, teach and evaluate single lessons in their curriculum areas to mixed ability classes. The subject also provides the opportunity for students to form valid and worthwhile reflections on the ways in which their practising schools cater for the needs of learners, from the vantage point of their own schooling, their post-compulsory education, work-related experiences and their introduction to Studies in Education and Curriculum, and Teaching Studies subjects.
Co-requisites: CPP410, LEP410
Credit Points: 6
Contact Hours: Four weeks block + one single day

EDP451 TEACHING PRACTICE B
This subject is designed to be the field studies component of the second semester subjects of the course. Its broad purpose is to develop students' confidence and competence in teaching and in teaming skills to a level that will enable them to experience success in their beginning year of teaching. In contrast to EDP450, where a lesson-by-lesson approach to teaching and an awareness approach to the role of the teacher were implied, this subject aims to immerse students in teaching in as realistic a manner as practicable. They are required to assume responsibility for teaching well-planned and well-resourced units of work, in which are employed a variety of teaching strategies and classroom management skills to cater for differences in learning styles and career aspirations. Within the wider school context, opportunities will arise for the enhancement of teaming skills and professional attitudes. Students are expected to in-

volve themselves fully in the organised day-to-day activities of the school.
Prerequisite: EDP450
Co-requisites: CUP411, LEP411 under normal circumstances.
Credit Points: 6
Contact Hours: Five weeks block + four single days

EDP510 PRACTICUM IN EARLY CHILDHOOD 1

Observation; planning, implementation and evaluation of curriculum for children in the early childhood age range; communication with children, parents and colleagues and the demonstration of organisational and administrative skills in an early childhood setting or equivalent.
Credit Points: 8

EDP511 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.
Prerequisite: EDP510
Credit Points: 8

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; introduction to AC theory, errors in measurement, traceability of measurement.
Credit Points: 7 **Contact Hours:** 3 per week

EEB107 AERONAUTICAL INDUSTRIAL EXPERIENCE 1

Students must engage in two weeks of approved employment in the aviation industry at the end of the first semester with a view to gaining a general background in aviation; for the employment to be recognised, students must submit an industrial experience record which has been completed by both the student and the employer.
Contact Hours: 2 weeks

EEB202 ELECTROMAGNETICS

Introduction to engineering applications of current flow, electrostatic and electromagnetic fields; ideal and loosely coupled transformers – instrument and high frequency transformers; electrical power supply and safety; introduction to all types of rotating electrical machines.
Credit Points: 6 **Contact Hours:** 3 per week

EEB203 CIRCUIT ANALYSIS

Network theorems, mesh and nodal analysis, complex power; introduction to the concept of steady-state response; introduction to transient response of RL, RC and RCL circuits with step forcing functions; mutual inductance, three phase systems.
Prerequisites: EEB101[R]
Credit Points: 5 **Contact Hours:** 3 per week

EEB206 INDUSTRIAL EXPERIENCE 1

Students should engage in at least five 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.
Contact Hours: 5 weeks

EEB209 ELECTRICAL ENGINEERING 2M

Introduction to the basic principles of microprocessors, microprocessor systems, electrical machines, power control and tariffs; the subject material will be presented at a basic level with heavy emphasis on practical applications.
Credit Points: 6 **Contact Hours:** 3 per week

EEB272 DIGITAL PRINCIPLES

Binary variables, number systems, Boolean algebra, minimisation of logic functions, logic gates, analysis and synthesis of combinational logic functions.
Credit Points: 3 **Contact Hours:** 1.5 per week

EEB273 MICROCOMPUTERS IN ENGINEERING

Introduction to the physical, virtual and application levels of a microcomputer system; I/O devices and interfacing; operating systems; programming and software packages; transducers and peripheral devices; hardware and software integration.
Credit Points: 4 **Contact Hours:** 2 per week

EEB302 ELECTROTECHNOLOGY

Magnetic circuits, magnetic materials, transformers and electro-magnetic devices. Power distribution, three phase, balanced and unbalanced loads.
Prerequisites: EEB202[R], EEB203[R]
Credit Puints: 6 **Contact Hours:** 3 per week

EEB303 NETWORK THEORY 1

A detailed study of the basic theory of network analysis covering Laplace and Fourier analysis, four terminal network theory, frequency behaviour and transient response of networks.
Prerequisites: EEB203[R], MAB193[R]
Co-requisite: MAB493
Credit Points: 7 **Contact Hours:** 3 per week

EEB361 SIGNALS & SYSTEMS

A detailed study of Fourier theory applied to signals. An overview of systems and their representation, response of systems to signals.
Prerequisites: EEB203[R], MAB193[R]
Co-requisite: MAB493
Credit Points: 7 **Contact Hours:** 3 per week

EEB371 ELECTRONIC DEVICES

Theory of operation and characteristics of semiconductor devices which includes various types of diodes, the bipolar junction transistor and the field effect transistor; development and practical applications of small signal models.
Prerequisite: EEB101[R]
Credit Points: 5 **Contact Hours:** 3 per week

EEB372 SEQUENTIAL LOGIC

Flip-slops, counters, shift registers, asynchronous and synchronous sequential machines. Realisation of sequential machines using PROMs, GALS, etc.
Prerequisite: EEB272[R] **Co-requisite:** EEB371
Credit Points: 7 **Contact Hours:** 3 per week

EEB373 DIGITAL ELECTRONICS PRINCIPLES

Binary variables to Boolean algebra; logic functions, gates and analysis; combined logic functions; flip flops, counters, shift registers; sequential machines; realisation of sequential machinery using PROMs, GALs, etc.
Credit Points: 6 **Contact Hours:** 3

EEB400 ELECTRICAL POWER SYSTEMS

Introduction to electrical power systems calculations; technology of overhead lines and cables; elementary

electrical engineering economics are also introduced at this stage.
Prerequisite: EEB302[R]
Credit Points: 6 **Contact Hours:** 3 per week

EEB401 NETWORK THEORY 2

General transform theory; stability and realisability of networks; the synthesis of networks and filters; an introduction to non-linear analysis techniques for simple networks.
Prerequisite: EEB303[R] **Co-requisite:** EEB361
Credit Points: 6 **Contact Hours:** 3 per week

EEB404 ELECTRICAL MACHINES

The fundamentals of torque production in rotating machines; the theory of operation and characteristics of most commonly used machines are then derived from common foundations.
Prerequisite: EEB302[R]
Credit Points: 6 **Contact Hours:** 3 per week

EEB406 INDUSTRIAL EXPERIENCE 2

Students should engage in at least five 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.
Contact Hours: 5 weeks

EEB407 AERONAUTICAL INDUSTRIAL EXPERIENCE 2

Students must engage in five weeks of approved employment in the aerospace industry at the end of the fourth semester with a view to gaining detailed experience in several aspects of aerospace industry particularly in relation to concepts peculiar to that industry; 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.
Contact Hours: 5 weeks

EEB430 ENGINEERING FIELDS

Electrostatic and magnetic fields, Maxwell's Equations and electromagnetic waves.
Prerequisites: MAB193[R], PHB132[R], PHB232[R]
Credit Points: 6 **Contact Hours:** 3 per week

EEB471 ELECTRONICS

A detailed study of transistor circuits and their applications; circuits, fundamental to the understanding of integrated circuit amplifiers are studied in detail.
Prerequisite: EEB371[R]
Credit Points: 7 **Contact Hours:** 3 per week

EEB473 INTEGRATED CIRCUITS

The fundamental theory of operation of integrated circuits and the generalised concepts of feedback in electronic circuits; various operational amplifier configurations are analysed; oscillators and timing circuits are also studied.
Prerequisite: EEB471[R]
Credit Points: 6 **Contact Hours:** 3 per week

EEB474 MICROPROCESSORS

Microprocessor architecture, instruction sets, assembly language programming; memories, input/output devices and interrupt systems.
Prerequisite: EEB372[R]
Credit Points: 6 **Contact Hours:** 3 per week

EEB520 CONTROL ENGINEERING

Survey of measurement transducers, amplifiers, signal processors and final control elements; selection of system components; application of micro-computers to closed-loop control; examples of closed-loop systems; system transfer function and time domain performance.
Prerequisite: EEB302[R] **Co-requisite:** EEB401
Credit Points: 6 **Contact Hours:** 3 per week

EEB531 ELECTRICAL POWER TRANSMISSION

Equivalent circuits of power equipment; the pu method; power flows in networks, solution by Gauss Siedel; sequence components, fault analysis by sequence methods; power system harmonics; transients due to switching; transmission plant parameters.
Prerequisite: EEB400[R]
Credit Points: 6 **Contact Hours:** 3 per week

EEB553 ELECTRICAL POWER EQUIPMENT

Transmission line parameters, standing voltage and travelling waves on transmission lines; introduction to protection of systems, CTs, VTs protection methods of electrical equipment.
Prerequisite: EEB400[R]
Credit Points: 6 **Contact Hours:** 3 per week

EEB561 ANALOGUE COMMUNICATIONS

Analogue modulations and demodulations hardware, including discrete and integrated electronic methods; AM-SSB-FM modulation and demodulation methods; heterodyne receivers: image and spurious responses of double and single conversion receivers; distributed networks: radio and transmission-line links effects and modulated signals.
Prerequisites: EEB361[R], EEB303[R]
Credit Points: 6 **Contact Hours:** 3 per week

EEB562 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.
Prerequisites: EEB361[R], EEB430[R]
Credit Points: 6 **Contact Hours:** 3 per week

EEB573 INDUSTRIAL ELECTRONICS

The study of a wide range of modern electronic devices and circuits with particular emphasis to industrial application.
Prerequisite: EEB471[R]
Credit Points: 6 **Contact Hours:** 3 per week

EEB580 AEROSPACE DESIGN 1

To study the environmental factors affecting the design of aerospace equipment particularly in relation to USA and Australian standards and specifications (eg US Mil Spees, FAA requirements such as FAR 23, 25 and Technical Service Orders, Australian certification requirements both civil and military); to examine in detail the operating regime for avionic equipment such as the properties of the atmosphere (temperature, pressure, humidity); design load factors for aeronautical equipment, reliability and duplication requirements.
Credit Points: 6 **Contact Hours:** 3 per week

EEB587 DESIGN I

General principles of electronic circuit and electrical equipment design and the realisation of typical electronic circuits and equipment.
Prerequisites: EEB401[R], EEB361[R], EEB400[R]
Credit Points: 6 **Contact Hours:** 3 per week

EEB591 SYSTEMS PROGRAMMING LANGUAGES

The syntax and facilities of the C programming language will be studied and applied to systems programming.
Prerequisite: EEB474[R]
Credit Points: 6 **Contact Hours:** 3 per week

EEB600 STARTING A TECHNOLOGY-BASED BUSINESS

Introduction to business structures, forming a business team, marketing and market research, financing new high-risk business, selling yourself with business plans and presentation skills, product development, manufacturing and distribution, inventions, useful people to talk to.
Credit Points: 4 **Contact Hours:** 2 per week

EEB601 REALTIME 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.
Prerequisite: EEB591[R]
Credit Points: 6 **Contact Hours:** 3 per week

EEB602 SIGNAL PROCESSING

Sampling and reconstruction, z-transforms description of discrete-time signals. Digital filtering: FIR, IIR; discrete Fourier transform and relationship with z-plane; leakage effects and window functions; discrete Hilbert transform relationships.
Prerequisites: EEB361[R], EEB401[R], MAB893[R]
Credit Points: 6 **Contact Hours:** 3 per week

EEB606 INDUSTRIAL EXPERIENCE 3

Students should engage in at least five 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.
Contact Hours: 5 weeks

EEB607 AERONAUTICAL INDUSTRIAL EXPERIENCE 3

Students must engage in 5 weeks of approved employment in the aerospace industry at the end of the sixth semester with a view to gaining specific information and experience in some aspect of aerospace industry; for the employment to recognised, students must submit an industrial experience record form which has been completed by both the student and the employer.
Contact Hours: 5 weeks

EEB620 CONTROL SYSTEMS ANALYSIS

Time-domain, frequency-domain, and complex-domain analysis of systems; closed-loop control system performance and system compensation; digital computer control of closed-loop systems; analogue and digital simulation of systems.
Prerequisite: EEB520[R]
Credit Points: 6 **Contact Hours:** 3 per week

EEB621 ADVANCED CONTROL SYSTEMS

System performance specification format; selection of control system elements; design of linear system compensation using analogue and digital techniques; techniques for dealing with system non-linearities and non-linear system analysis and design; examples of typical control systems.
Prerequisite: EEB620[R]
Credit Points: 6 **Contact Hours:** 3 per week

EEB652 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; quasisquare 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.
Prerequisite: EEB573[R]
Credit Points: 7 **Contact Hours:** 3 per week

EEB661 INFORMATION THEORY & 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.
Prerequisites: MAB493[R], EEB361[R]
Credit Points: 6 **Contact Hours:** 3 per week

EEB662 MICROWAVE & ANTENNA TECHNOLOGY

Propagation in rectangular and circular guides, guide components, microwave active devices, high frequency techniques, various types of antennas, antenna arrays, computer-aided antenna design, antenna measurements.
Prerequisite: EEB562[R]
Credit Points: 7 **Contact Hours:** 3 per week

EEB680 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.
Prerequisites: EEB580[R], EEB561[R], EEB400[R], EEB620[R]
Credit Points: 6 **Contact Hours:** 3 per week

EEB691 AERONAUTICAL COMPUTING

Suitable languages such as ADA will be used to implement embedded avionics computer systems and practical experience will be gained in the application of object-oriented software design, concurrency and distributed systems commonly used in the aerospace industry.
Prerequisites: CSB490, EEB472
Credit Points: 6 **Contact Hours:** 3 per week

EEB692 SPACE TECHNOLOGY

Review of world launch capability; spherical trigonometry; orbits and trajectories, eg. launch orbits, geostationary orbits; GPS 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.
Credit Points: 6 **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 augmented 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.
Prerequisites: MEB551, MEB611, MEB553
Co-requisite: EEB947
Credit Points: 6 **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.
Prerequisite: EEB531[R]
Credit Points: 8 **Contact Hours:** 3 per week

EEB742 POWER SYSTEMS ENGINEERING

Substation engineering, protection of plant, substation earthing, system overvoltages, insulation coordination, HV switchgear.
Prerequisite: EEB531[R]
Credit Points: 7 **Contact Hours:** 3 per week

EEB761 STATISTICAL COMMUNICATION

PCM quantization noise in uniform and non-uniform quantization; effects of channel noise on S/N; delta modulation and delta-sigma modulations; threshold extensions, spread spectrum, matched filtering and correlation.
Prerequisite: EEB661[R]
Credit Points: 7 **Contact Hours:** 3 per week

EEB780 AEROSPACE DESIGN 3

Practical design assignments consisting of detailed design and realisation of typical sub-systems 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.
Prerequisites: EEB680[R], EEB602[R], EEB474[R]
Co-requisites: EEB790, EEB947
Credit Points:6 **Contact Hours:** 3 per week

EEB784 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 subject is selected from aerospace engineering and involves electronics, computing, control, communication and electrical power; it may include programming, circuit and system design.
Credit Points: 12 – Semester 1/15 – Semester 2
Contact Hours: 6-Semester 1/6-Semester 2

EEB788 DESIGN 2

Design principles and practice of more complex electronic circuits and electrical equipment and systems used in industry.
Prerequisites: EEB587[R], EEB561[R], EEB520[R], EEB400[R]
Credit Points: 8 **Contact Hours:** 3 per week

EEB789 PROJECT

An individual engineering project on a specified subject will be completed; the work will require, design, computing, construction, experimental work and practical testing with the submission of appropriate reports; the subject will be selected from any area which involves electronics, computing, control, communication and educational power and may include programming, circuit and system design.
Co-requisites: This subject must be done in the final year of the course.
Credit Points: 15

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.
Credit Points: 8 **Contact Hours:** 3 per week

EEB821 PRODUCTION TECHNOLOGY & QUALITY

The methodology of electronic system design, the range of production processes in electronic manufacture, and the quality control procedures required in electronic manufacturing at both prototype and full production stages.
Prerequisites: EEB587[R], EEB788[R]
Credit Points: 6 **Contact Hours:** 3 per week

EEB841 MINING ELECTROTECHNOLOGY

Definition of hazardous locations; methods of protection of electrical equipment; instrinsically safe circuits, flameproof equipment; power supply systems in mines; planning, voltage regulation, fault levels, dynamic operation; earthing in mines; monitoring and control equipment; communications systems in mines; testing and certification of mining equipment; gas explosion testing, assessment of intrinsically safe equipment, CTI testing, temperature rise and high current testing.
Prerequisite: EEB531[R]
Credit Points: 7 **Contact Hours:** 3 per week

EEB880 AEROSPACE DESIGN 4

Practical design assignments consisting of the realisation of complete system designs for a specific aspect of the avionics industry; assignments require that design problems be solved analytically and the results confirmed by equipment construction and practical measurement; factors such as reliability, complexity, economic considerations and system (and sub-system) optimisation; computer-aided design; computer simulation and programming may be required.
Prerequisite: EEB780
Credit Points: 7 **Contact Hours:** 3 per week

EEB887 DESIGN 3

Detailed design and realisation of typical electronic and power based sub-systems used in all areas of electronic systems and power systems engineering.
Prerequisites: EEB788[R], EEB602[R], EEB620[R], EEB474[R], EEB400[R], EEB971[R] or EEB531[R]
Co-requisite: EEB968 or EEB742
Credit Points: 6 **Contact Hours:** 3 per week

EEB888 DESIGN 4

System design techniques and practice in these techniques on typical electronic systems and power systems, taking into account such factors as realisability, reliability, complexity, economic considerations and optimisation.
Prerequisite: EEB887[R]
Credit Points: 10 **Contact Hours:** 3 per week

EEB890 ADVANCED INFORMATION TECHNOLOGY TOPICS

The content of this subject will depend on current technology and availability of suitable specialist lecturers; subjects could include artificial intelligence, computer graphics, database systems, computer-aided engineering, super computing and parallel processing.
Prerequisite: EEB591[R]
Credit Points: 8 **Contact Hours:** 3 per week

EEB901 INDUSTRIAL EXPERIENCE 1

Students should engage in at least five 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.
Contact Hours: 5 weeks

EEB902 INDUSTRIAL EXPERIENCE 2

Students should engage in at least five 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.
Contact Hours: 5 weeks

EEB903 INDUSTRIAL EXPERIENCE 3

Students should engage in at least five 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.
Contact Hours: 5 weeks

EEB922 COMPUTER CONTROLLED SYSTEMS

Computer control of typical process control systems; numerical control of machine tools and an introduction to robotics; optimal control and self-adaptive control systems; sequential control systems.
Prerequisites: EEB621[R], EEB620[R]
Credit Points: 7 **Contact Hours:** 3 per week

EEB932 AUTOMATIC FLIGHT CONTROL

Derivation of transfer functions for aircraft and missiles including affects 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 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.
Prerequisites: EEB723, MEB551, MEB611, MEB553
Co-requisite: EEB947
Credit Points: 7 **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 nav systems; infra-red.
Prerequisite: EEB947
Credit Points: 7 **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 for acquisition and tracking; description and analysis of the Global Positioning System (GPS); position fixing using GPS.
Prerequisites: EEB561, EEB562, EEB968, EEB662
Co-requisite: EEB947
Credit Points: 7 **Contact Hours:** 3 per week

EEB935 ADVANCED SATELLITE SYSTEMS

Design of communication systems for spacecraft; spacecraft and ground stations performance; special modulation methods; coherent frequency translation modes of operation; analysis of intermodulaton 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.
Prerequisites: MEB692, MEB790
Credit Points:7 **Contact Hours:** 3 per week

EEB947 RADAR & RADIO NAVIGATIONAL AIDS

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.
Prerequisites: EEB561, EEB562, EEB968, EEB662
Credit Points: 6 **Contact Hours:** 3 per week

EEB951 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.
Co-requisite: EEB742
Credit Points: 7 **Contact Hours:** 3 per week

EEB954 ELECTRICAL ENERGY UTILISATION

Power reticulation in building, energy management, fire protection systems, illumination technology, air conditioning plant, building supervising and control systems, lifts.
Prerequisite: EEB553[R]
Credit Points: 7 **Contact Hours:** 3 per week

EEB955 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 in static VAR

compensation. Uninterruptible power supplies (UPS); induction heating; high frequency switching technology in variable speed AC drives; power electronic physical layout considerations.
Credit Points: 7 **Contact Hours:** 3 per week

EEB961 COMMUNICATIONS TECHNIQUES

Modern communication techniques including switched networks, broadcast, point-to-point systems; microwave and optical links; radio navigation and radar; associated electronic devices.
Prerequisite: EEB661[R]
Credit Points: 7 **Contact Hours:** 3 per week

EEB962 MICROWAVE SYSTEMS ENGINEERING

Microwave thermionic and semiconductor devices, amplifier design using scattering parameters; passive microwave devices including non-linear networks and ferrites; array theory and design, microwave antennae.
Prerequisite: EEB662[R]
Credit Points: 7 **Contact Hours:** 3 per week

EEB967 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 are analysed.
Credit Points: 6 **Contact Hours:** 3 per week

EEB968 DIGITAL SIGNAL PROCESSING

Adaptive digital filtering and applications, spectral estimation techniques, speech analysis and synthesis; realtime implementation of signal processing systems.
Prerequisite: EEB602[R]
Credit Points: 7 **Contact Hours:** 3 per week

EEB969 DIGITAL SPECTRAL ANALYSIS

Modern spectral estimation, parametric and non-parametric; time frequency analysis and instantaneous frequency estimation; definition and implementation of higher order spectra; application of higher order spectra to signal detection and classification.
Prerequisite: EEB968[R]
Credit Points: 7 **Contact Hours:** 3 per week

EEB971 APPLIED ELECTRONICS

Analysis of the characteristics and applications of a variety of integrated devices; particular attention is given to new products; emphasis is placed on errors and quality of design.
Prerequisite: EEB573[R]
Credit Points: 6 **Contact Hours:** 3 per week

EEB972 INTEGRATED ELECTRONIC TECHNIQUES

Study of a wide range of commercially available integrated circuits and their typical applications in industry; design rules, limitations and methods of VLSI fabrication.
Prerequisite: EEB573[R]
Co-requisite: EEB602[R]
Credit Points: 7 **Contact Hours:** 3 per week

EEB980 AEROSPACE LAW

Aviation law, both national and international; cargo constraints, restricted airspace, transport of people and animals, dangerous cargoes and firearms; the division of the upper atmosphere and space; insurance considerations.
Credit Points: 7 **Contact Hours:** 3 per week

EEP101 ALGORITHMS FOR CONTROL & SIGNAL PROCESSING

The application of numerical analysis methods, equation solving and signal processing; the design of digital computer algorithms for the processing of signals and the control of continuous and discrete processes; and the application of optimisation techniques to system control.
Credit Points: 12 **Contact Hours:** 3 per week

EEP102 UNIX & C FOR ENGINEERING

The C language; use of C for program development; use of C as a substitute for assembly language to produce ROMable code with methods and particular problems; the UNIX operating system and its use as an engineering work station operating system.
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.
Credit Points: 12 **Contact Hours:** 3 per week

EEP104 REALTIME OPERATING SYSTEMS

Definition and review of realtime operating systems; detailed examination of the structure of realtime operating system; the development of programming skills, orientated towards realtime applications; programming exercises for realtime applications using assembler and high-level languages.
Co-requisite: EEP102
Credit Points: 12 **Contact Hours:** 3 per week

EEP120 NETWORKS & DISTRIBUTED COMPUTING

A thorough treatment of the ISO OSI model of computer interconnections and common techniques for layers 3 to 7; this includes protocols, software and packages and the computers which support these layers; a lighter treatment of layers 1 and 2 will also be given.
Prerequisites: EEP103, EEP104
Credit Points: 12 **Contact Hours:** 3 per week

EEP121 PARALLEL & SUPER COMPUTING

The latest in vector processing and parallel computing technology; students will have access to parallel computer development systems and may be required to undertake a small research project.
Credit Points: 12 **Contact Hours:** 3 per week

EEP122 GRAPHICS & COMPUTER VISION

An introduction to the human visual system and the modelling of digital images; it also provides an introduction to a range of digital image process systems, transforms, image enhancement, image structural operations and pattern recognition.
Credit Points: 12 **Contact Hours:** 3 per week

EEP123 PROCESS CONTROL & ROBOTICS

A thorough survey of computers as applied to manufacturing, encompassing hardware and software methods and state of the art products; material in-

cludes robots, computer numerically controlled machine tools, distributed process control, networks and computers.
Prerequisite: EEP101
Credit Points: 12 **Contact Hours:** 3 per week

EEP124 DATA COMMUNICATIONS

Characteristics of transmission channels, synchronous and asynchronous modems and interfaces, fibre optic and satellite links, local and wide area networks, encoding and security.
Credit Points: 12 **Contact Hours:** 3 per week

EEP125 ADVANCED ENGINEERING SOFTWARE TOOLS

Selected numerical techniques and computer software tools available in procedural and non-procedural languages as well as specialised commercial applications packages for the analysis and design of data transmission systems.
Credit Points: 12 **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.
Credit Points: 48 **Contact Hours:** 168 total hours

EET100 ELECTRICAL ENGINEERING COMPUTATIONS

A study of and practice in manipulating complex numbers, vectors, determinants and matrices, statistics, differential equations; Fourier analysis; examples in electrical engineering applications using calculators.
Credit Points: 7 **Contact Hours:** 3 per week

EET111 ELECTRICAL ENGINEERING 1

SI units, dc circuits including: parallel and series resistor combinations, temperature coefficient of resistance and circuit theorems; electrostatics and capacitance; self inductance; transients RL and RC circuits.
Credit Points: 7 **Contact Hours:** 3 per week

EET211 ELECTRICAL ENGINEERING 2

Introduction to alternating quantities; sinusoidally time varying sources; phasor diagrams; RL, RC and RLC series and parallel circuits; resonance, j notation; complex power; application of circuit theorems to AC circuits.
Prerequisite: EET111[R]
Credit Points: 7 **Contact Hours:** 3 per week

EET270 ELECTRONICS 1

An introduction to the fundamentals of electronic devices and transistor circuits; emphasis is placed on characterising and applying these devices to basic electronic circuits; applications include: transistor amplifiers including differential and tuned stages, current sources, oscillators and simple fault finding techniques.
Prerequisites: EET111[R], EET100[R]
Co-requisite: EET211
Credit Points: 7 **Contact Hours:** 3 per week

EET350 ELECTRICAL ENGINEERING 3

Magnetic circuits, single phase transformers, equivalent circuits, power losses, regulation and efficiency; three phase theory, balanced and unbalanced loads, measurement of power; electrical safety earthing, fault levels and protection equipment; electrical machines, review of principles of operation and characteristics of a range of AC and DC machines; costs of electricity tariffs.
Prerequisite: EET211[R]
Credit Points: 7 **Contact Hours:** 3 per week

EET420 CONTROL SYSTEMS 1

Distinction between open and closed loop, discrete and continuous control; typical nonlinearities; transducers for temperature, pressure, fluid flow rate, level, velocity, position, strain; survey of summation and amplifying techniques for electronics (revision), pneumatic and hydraulic systems; motors, control valves, actuators and brief survey of commercial controllers; the use of negative feedback; improvement in linearity, speed of response, etc.; survey of hardware employing negative feedback; philosophy of mathematical modelling; introduction to differential equations; laplace transforms and transfer functions; block diagrams; responses in the time domain; introduction to frequency domain analytical techniques.
Prerequisite: EET211[R]
Credit Points: 7 **Contact Hours:** 3 per week

EET460 TELECOMMUNICATIONS

The nature of signals; elementary Fourier analysis; the concept of modulation; amplitude and angle modulation; pulse modulation; multiplexing; signal processing and noise; the nature of links; noise and links; mixing and superhet principles; digital and data transmission and fibre optics.
Prerequisites: EET100[R], EET211[R]
Credit Points: 7 **Contact Hours:** 3 per week

EET490 COMPUTER PACKAGES

A brief study and use of packages such as word processors, spreadsheets, database packages and commonly used engineering packages such as Mathlab and Spice hardware interconnection.
Credit Points: 7 **Contact Hours:** 3 per week

EET500 ELECTRICAL TECHNOLOGY

Introduction to electric motors, generators, transformers and three phase systems.
Credit Points: 6 **Contact Hours:** 3 per week

EET522 CONTROL SYSTEMS 2

Process control system terminology and symbols; review of hardware as necessary; chart recorders; sizing of control valves; measurement of mass flowrate, humidity and chemical composition; analogue data transmission standards; three term controllers and other appropriate techniques; examples of process control configurations, such as cascade, ratio and feedforward control; controller tuning; system performance for reference, noise and load disturbances; accuracy, steady state errors, effect of type number on performance; stability and more advanced frequency domain analysis; machine control systems, such as DC motor speed controllers, variable frequency controllers, servosystems, performance of machine control systems.
Prerequisite: EET420[R]
Credit Points: 7 **Contact Hours:** 3 per week

EET560 COMMUNICATIONS ENGINEERING 1

Areas covered include: advanced signal analysis using Fourier methods; AM generation and detection, the effects of filtering and noise; FM and PM generation and demodulation, effects of noise, FM threshold, SSB methods; phase locked loop principles; radio receiver circuits, double conversion, spurious respon-

ses; pulse analogue modulation, PAM, PWM, PPM, circuits and spectra.
Prerequisites: EET270[R], EET460[R]
Credit Points: 7 **Contact Hours:** 3 per week

EET570 ELECTRONICS 2

Integrated circuit amplifiers and their applications; other areas of study include: power amplifiers; optoelectronic devices; voltage regulators and a survey of semiconductor switching devices.
Prerequisite: EET270[R]
Credit Points: 7 **Contact Hours:** 3 per week

EET590 MICROPROCESSOR SYSTEMS

Assembly language programming and use of microprocessors as electrical engineering hardware. Interfacing of microprocessors to instrumentation and external equipment.
Prerequisites: CST390[R], EET676[R]
Credit Points: 7 **Contact Hours:** 3 per week

EET642 ELECTRICAL POWER SYSTEMS

Single line diagrams, pu systems, transmission line equivalent circuits, fault balanced calculations, power flow calculations, overhead line and underground cable characteristics, power system insulation.
Prerequisite: EET350[R]
Credit Points: 7 **Contact Hours:** 3 per week

EET650 ELECTRICAL EQUIPMENT

Three phase transformers, multiwinding, auto; special types of AC machines including three phase and single phase induction motors, synchronous machine construction and operation.
Prerequisite: EET350[R]
Credit Points: 7 **Contact Hours:** 3 per week

EET676 DIGITAL ELECTRONICS

The basic concepts of digital combinational and sequential logic circuits; logic gates, Boolean algebra, minimisation of logic functions, counters, shift registers, address, ADCs, DACs and logic families; code converters and binary arithmetic.
Co-requisites: EET270
Credit Points: 7 **Contact Hours:** 3 per week

EET678 APPLIED ELECTRONICS

The integrated circuit approach to electronic systems design; the subject is highly practical and utilises the basic fundamentals of ICs given in integrated circuits; further treatment of integrated circuits with practical applications: amplifiers (all the common configurations), oscillators, special purpose circuits such as peak detectors, sample and hold circuits, active filters.
Prerequisite: EET570[R]
Credit Points: 7 **Contact Hours:** 3 per week

EET690 COMPUTER ORGANISATION

A comparative study of computer architectures and operating systems from microprocessors up to super computers; virtual machines, interpreters, compilers, linkers, loaders, disc operating systems and executive; instruction sets, addressing modes and instruction pre fetch cycles; a survey of memory management techniques such as memory maps, virtual memory, cache memory, and interleaving; exception processing methods such as interrupts, autovectors, bus errors and supervisor states; multi processor systems and computer communications standards, networks and protocols. Parallel computing, pipelines, single instruction multiple data and multiple instruction multiple data machines.
Prerequisites: CST390[R], EET676[R]
Credit Points: 7 **Contact Hours:** 3 per week

EET720 MODERN CONTROL TECHNOLOGY

Onstream analysers; intelligent analytical equipment; sequence control and programmable logic controllers; robot sensors and control systems; computer numerical controlled machines; distributed control systems; sampling theory and algorithm development; communication between intelligent control systems (such as MAP and TOP); adaptive and automatic tuning controllers; advanced testing instruments.
Prerequisite: EET420[R]
Co-requisite: EET522[R]
Credit Points: 7 **Contact Hours:** 3 per week

EET737 TRANSMISSION & PROPAGATION

Transmission lines study of waves; reflections; matching; using Smith circle and computer aided techniques; electromagnetic waves in free space and at the boundary between media; basic antenna parameters and properties, waveguide theory and microwave techniques and an introduction to optical fibre technology.
Prerequisite: EET460[R]
Credit Points: 7 **Contact Hours:** 3 per week

EET753 TESTING & COMMISSIONING TECHNIQUES

The philosophy of testing, the concepts of quality assurance and the principles of commissioning; test methods and techniques for various electrical tests; application of test methods and techniques to a range of electrical plant; principles of earthing in a power system; safety procedures.
Prerequisite: EET350[R]
Credit Points: 7 **Contact Hours:** 3 per week

EET760 COMMUNICATIONS ENGINEERING 2

Sampling, reconstruction, spectra; quantization, dynamic range and noise; PCM methods and circuitry, companding; delta modulation; digital transmission, TDM, FDM, modulation methods; data coding for error correction and data communication protocols.
Prerequisite: EET560[R]
Credit Points: 7 **Contact Hours:** 3 per week

EET791 COMPUTER PROGRAMMING 2

Development of the concepts introduced in CST390 to include the full range of features in this language; an introduction to the features of FORTRAN.
Prerequisite: CST390[R]
Credit Points: 7 **Contact Hours:** 3 per week

EET840 SUBSTATIONS & PROTECTION SYSTEMS

Study insulation coordination principles, substation layout and equipment including circuit breakers, current and voltage transformers and their characteristics; an introduction to sequence components and fault calculations; a description of different types of protection systems and their integration with the power system, especially substations.
Prerequisite: EET642[R]
Credit Points: 7 **Contact Hours:** 3 per week

EET860 COMMUNICATIONS TECHNOLOGY

Broadcast radio and TV, terrestrial and satellite; specialised broadcast systems, eg. police, taxi; point-to-point radio communications; telemetry; switched systems, circuit and packet switching, exchangers, traffic; use of different frequency ranges, VLF, MF,

HF, VHF, UHF and SHF for radio communications; a number of compulsory industrial visits are arranged.
Prerequisites: EET570[R], EET676[R]
Credit Points: 7 **Contact Hours:** 3 per week

EET870 INDUSTRIAL ELECTRONICS

Study of a wide range of electronic devices and circuits associated with industrial control systems; a wide range of power switching devices and their applications are studied together with electronic measurement systems and their associated transducers.
Prerequisite: EET570[R]
Credit Points: 7 **Contact Hours:** 3 per week

EET880 DESIGN

The main concepts of electrical designs and introduction to relevant specifications and standards; further work is in the form of design projects in which a written report must be submitted.
Prerequisites: Major subjects in selected modules
Co-requisites: Major modules 1(d) and 2(d)
Credit Points: 7 **Contact Hours:** 3 per week

EET891 ADVANCED COMPUTING TECHNIQUES

Applications of computers and microprocessor systems to data collection supervisory and active control functions; realtime operating systems and software development in both low level languages and appropriate high level language such as C or MODULA 2.
Prerequisite: CST390[R]
Credit Points: 7 **Contact Hours:** 3 per week

EPB100 ADMINISTRATIVE THEORY

Use of political theories and models in the study of public administration: theories of democracy: individualism, pluralism, elitism, corporatism, marxism; theories of power: Clelland, Lasswell; theories of bureaucracy: Weber, Mosca, Michels, Marx; use of management theories and models in the study of public administration: classical/traditional theory; human relations theory; systems theory and structural functionalism; action theory (Harmon); Group theory (Bales' typology); administrative personality types.
Prerequisite: BSB102, EPB112
Credit Points: 12 **Contact Hours:** 3 per week

EPB101 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.
Prerequisite: EPB142 and EPB152 or one of these plus the other as a co-requisite.
Credit Points: 12 **Contact Hours:** 3 per week

EPB102 APPLIED ECONOMETRICS A

Development of general linear model in matrix form and assumptions underlying the model; specification of models in terms of explanatory variables and functional form; econometric problems such as multicollinearity, serial correlation and heteroscedasticity; dummy variables as a proxy to qualitative and quantitative variables; simultaneous equation models and their applications.
Prerequisite: EPB110
Credit Points: 12 **Contact Hours:** 3 per week

EPB103 APPLIED ECONOMETRICS B

Single equation methods such as errors in variables, lagged variables and principle components with applications in economics; simultaneous equation methods, identification problems; estimation methods such as indirect least square, two stage least squares and three stage least squares.
Prerequisite: EPB102
Credit Points: 12 **Contact Hours:** 3 per week

EPB104 APPLIED ECONOMIC TECHNIQUES 1

Approaches to economic research; econometrics applications; single equation models for the estimation of: demand, production and cost functions and applications (eg. elasticities, returns to scale); forecasting techniques; classical, algebraic, regression, introduction to ARIMA; operations research applications; linear programming and applications: portfolio selection, marketing applications, production scheduling; transportation techniques and applications; assignment techniques for job/territory allocation; inventory management with deterministic and probabilistic demand; decision theory: developing a decision strategy; network models: CPM applications to project management
Prerequisite: Quantitative Methods, Introductory Statistics (Administrative Research), EPB140, EPB150
Credit Points: 12 **Contact Hours:** 3 per week

EPB105 ASIAN ECONOMIC DEVELOPMENT

To analyse economic change in Asia and the evolution of the Asia-Pacific region; the development of the Japanese economy post 1868; the rise of the NIC's ASEAN and South-east Asia and Japanese economic policies.
Credit Points: 12 **Contact Hours:** 3 per week

EPB106 AUSTRALIAN ECONOMIC HISTORY

The development of the Australian economy and its economic institutions from the 1890s to World War II; analysis of post-war 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, labor, 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.
Credit Points: 12 **Contact Hours:** 3 per week

EPB107 BUSINESS ECONOMIC FORECASTING

Review of deterministic forecasting models; properties of stochastic time series; concepts of stationarity and the autocorrelation function; identification of autoregressive, moving average and ARIMA models; non-linear estimation of model parameters; diagnostic checking to determine model adequacy; forecasting and adaptive forecasting with ARIMA models; seasonal ARIMA models and their application.
Prerequisite: EPB104, EPB102
Credit Points: 12 **Contact Hours:** 3 per week

EPB108 BUSINESS IN ASIA

The business and cultural environment of Japan, China, the NICs and ASEAN; the operation and management of the major Asian economies; social and institutional foundations of the economies concerned; interaction between Asia and Australia.
Credit Points: 12 **Contact Hours:** 3 per week

EPB109 BUSINESS METHODOLOGY

Commonly used statistical techniques for handling data; central limit theorem and confidence intervals; hypothesis testing for one and two populations (both means and proportions); repertory grid analysis testing; analysis of variance; simple and multiple regression and correlation; index numbers; time series; non-parametric statistics; business forecasting. Computer work will involve SPSSX on the VAX. Students taking this subject should also have completed the bridging course in statistics.
Prerequisite: FNB102
Credit Points: 12 **Contact Hours:** 3 per week

EPB110 BUSINESS STATISTICS

Hypothesis testing (means and proportions), analysis of variance, simple and multiple regression, non-parametric methods, index numbers, time series analysis and business forecasting. (**Note:** Students who have not studied the Probability and Statistics Unit in secondary school are strongly advised to take the bridging course in this area offered by the School of Mathematics, and should be familiar with the statgraphics package.)
Prerequisite: FNB102
Credit Points: 12 **Contact Hours:** 3 per week

EPB111 COMPARATIVE ECONOMIC SYSTEMS

Rationale for the study of comparative economic systems; methods of comparison; structural dimensions as systemic factors; socio-political settings and economic systems; ideology, social relations and political institutions; socialist planning and administrative decentralisation; socialist planning and manipulative decentralisation; planning and the role of the state in the market economy; socialist economic reforms; structural change and economic development; convergence.
Prerequisites: EPB142, EPB152
Credit Points: 12 **Contact Hours:** 3 per week

EPB112 CRITICAL ANALYSIS

The anatomy of valid argument in the social sciences, analysis of a chain of arguments from premise to conclusion, examination of causes, fallacies in argument to foster a critical stance; application of these fundamentals of reasoning to organisation principles, rule making issues and the enforcement problem, strategies for change, dealing with clients and responding to rhetoric.
Credit Points: 12 **Contact Hours:** 3 per week

EPB114 ECONOMIC DEVELOPMENT

The economies of development of the Third World; examination and application of economic principles, theories and policies to the understanding of significant real world development problems such as poverty, inequality, unemployment, debt, rural stagnation, 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 appropriate institutional and structural analyses to provide a better understanding of the problems.
Prerequisites: EPB142, EPB152
Credit Points: 12 **Contact Hours:** 3 per week

EPB115 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.
Prerequisite: EPB142, EPB152, EPB104
Credit Points: 12 **Contact Hours:** 3 per week

EPB116 ECONOMIC PRINCIPLES

Economic problem and its basis scarcity; contemporary Australian microeconomics institutions; aspects of market demand, supply and elasticity; costing principles; profit maximisation; Australian market structure; price and output decisions in different market types; relevance of microeconomics for the macro economy; economic institutions in the macro economy; measurement of GDP recession and prosperity; income determination and distribution; role of the Reserve Bank; managing the external economy; integrated monetary and fiscal policies and aspects of the current economic debate.
Credit Points: 12 **Contact Hours:** 3 per week

EPB117 ECONOMICS OF INDUSTRY

Economics of industry builds upon the foundations of the theory of the firm developed in the analytical subject EPB142. Analysis is extended to concentration measures, pricing behaviour, contestable markets, multi-product firms, control of pricing practices, the Trade Practices Act.
Prerequisite: EPB152
Credit Points: 12 **Contact Hours:** 3 per week

EPB118 ECONOMICS OF STRATEGIC MANAGEMENT

The internal structure, operation and growth of organisations with special reference to commercial institutions; the determinants of the internal structure of organisations; the relative effectiveness of the institutions of market and hierarchy in reaching decisions; the determinants of vertical integration; the determinants of the growth and functioning in internal labour markets; the reasons for the development of firms as economic institutions; and the role of the entrepreneur in decision making. (**Note:** This subject is not available to students who have taken and passed EPN103.)
Prerequisite: EPB152
Credit Points: 12 **Contact Hours:** 3 per week

EPB120 EUROPEAN ECONOMIC HISTORY

Reasons for Europe's economic success; emergence and spread of industry; Europe's involvement with the world economy and the evolution of the international economy from 1850: international movements of capital and technology.
Credit Points: 12 **Contact Hours:** 3 per week

EPB121 EUROPEAN INTEGRATION

The economic history of European integration post World War II; survey and analysis of the major economies and the European institutional framework emphasis on current issues surrounding Europe 1992, the impact of changes in Eastern Europe and Australia's relationship with the new Europe.
Prerequisites: EPB140, EPB150
Credit Points: 12 **Contact Hours:** 3 per week

EPB124 GOVERNMENT

Political concepts and principles: social and economic factors in Australian politics; responsible government: Westminster principles; federalism: the Constitution, inter-governmental relations; separation of powers: parliament and the executive, judiciary, the High Court and statutory interpretation;

representation: Commonwealth electoral system, major and minor political parties, interest groups and peak organisations; role of government: public policy-making process, intervention, regulation, assistance and promotion, trend to corporatism; Australia in the international community; reform and trends (constitution, parliament, intergovernment relations, administrative, industrial, and social reforms).
Credit Points: 12 **Contact Hours:** 3 per week

EPB125 GOVERNMENT & BUSINESS

The political context of development: a review of major trends in Australian government policies towards business; ideology and government-business relationships: liberalism, socialism and their contemporary derivatives; intergovernment relations and business policy; the regulatory framework; the big government debate; interest representation: interest groups, political parties and processes; the trend to corporatism; taxation and welfare policies and business; government, business and the primary sector; government, business and manufacturing; government, business and the transport sector; government, business and resource development; government, business and finance; science and technology.
Prerequisites: EPB124 and one of EPB140 or EPB150.
Credit Points: 12 **Contact Hours:** 3 per week

EPB127 HISTORY OF ECONOMIC THOUGHT

Adam Smith and economic development; Malthus and the population problem; the magnificent dynamics of David Ricardo; the problem of value; Smith, Ricardo, Marx and the marginal revolution; utopian socialists and the problem of alternative organisation and industry; Marx and the critique of capitalism; planning versus the market; Lange versus Mises; Schumpeter on economic development; Rae, Veblen and Gailbraith and the problem of consumerism.
Prerequisites: EPB142, EPB152
Credit Points: 12 **Contact Hours:** 3 per week

EPB130 INTERNATIONAL ECONOMICS

Trade theory and international macroeconomics; Australia's experience in international economies with emphasis on recent events particularly after the dollar was floated in December 1983. Other topics include: theories of trade, balance of payments, Australia's export dilemma, foreign investment in Australia, GATT, OECD, commodity agreements, tariff and other barriers to trade, the spot and forward FX markets, FX risk management using futures and options, the national debt, Keynesian, monetary and rational expectations, approaches to balance of payments theories, the EC, ASEAN, the economies and monetary effects of the 1990 re-unification of Germany, international monetary reform.
Prerequisites: EPB142, EPB152
Credit Points: 12 **Contact Hours:** 3 per week

EPB131 INTERNATIONAL POLITICS & BUSINESS

Public and private enterprise: a descriptive and comparative perspective; the extent and socio-economic significance of public enterprises; the development of public enterprise: to World War 1; the development of public enterprise: from World War I to present; policy and planning in public enterprise; control systems and problems; personnel policies and problems; financial policies and practices; assessing the performance of public enterprise: models and criteria; assessing the performance of public enterprise: the literative; privatisation and the Commonwealth; State Government and privatisation; the future of state intervention.
Prerequisite: EPB124
Credit Points: 12 **Contact Hours:** 3 per week

EPB132 INTERNATIONAL TRADE & FINANCE

Australia's experience in international economics with emphasis on recent events particularly after the dollar was floated in December 1983. Particular topics dealt with include: theories of trade, balance of payments, Australia's export dilemma, foreign investment in Australia, GATT, OECD, commodity agreements, tariff and other barriers to trade, the spot and forward FX markets, FX risk management using futures and options, the national debt, Keynesian and monetary approaches to the balance of payments, the EC, ASEAN, the economics and monetary effects of the 1990 re-unification of Germany.
Prerequisites: EPB140, EPB150
Credit Points: 12 **Contact Hours:** 3 per week

EPB133 GLOBALISATION & WORLD BUSINESS

Economic conflict and competition in the international economy, new trade theorists, international monetary relations in the Pacific, conflict in agricultural product and exports, economic conflict with and within the European community, US/Japanese/Australian economic relations, the north-south dialogue, Australia as a participant in international economic conflict and cooperation.
Credit Points: 12 **Contact Hours:** 3 per week

EPB135 LOCAL GOVERNMENT

The nature and constitutional status of local government in Queensland; the evolution of local government legislation; community of interest concepts; determination of external boundaries; local government electoral systems in Queensland; public participation and policy formulation; professionals in local government; administrative issues; functions, the general charter, personnel resources; budgeting and finance; local government and federalism; greater local government; City of Brisbane; regional administration; local government in the UK; corporatism in local government; EARC proposals and the reform process.
Prerequisite: EPB124
Credit Points: 12 **Contact Hours:** 3 per week

EPB136 LOCAL GOVERNMENT ADMINISTRATIVE PRACTICE 1

The local authority, its constitution, committees; the Department of Housing and local government, and powers of central government; by-laws: procedure, content, and enforcement; elections and electoral procedures; the finances of the local authority; planning schemes, land use controls, procedures; planning and the Environment Court; subdivision of land, building units title and group title, artificial lakes, canals; environmental controls, types and powers, Environmental Impact Statement (EIS): the role of the local authority; Health, the Health Act and regulations; the standard bylaws (buildings, water supply and sewerage) and flammable liquids regulations; local authority meeting agenda and minutes; the Local Government Association of Queensland; a review of recent legislative action and possible future legisla-

tion. (**Note:** Offered in Semester 1 in odd-numbered years only.)
Prerequisite: EPB135
Credit Points: 12 **Contact Hours:** 3 per week

■ EPB137 LOCAL GOVERNMENT ADMINISTRATIVE PRACTICE 2

A review of the Local Government Act; miscellaneous powers and duties of local authorities; Brisbane City Council: constitutions, acts, ordinances, City of Brisbane Town Planning Act; land acquisition, and compensation; flood mitigation and land use controls in flood prone areas; town planning, dam catchment areas, the North Pine Dam study; town planning and land subdivision research project; planning and Environment Court decisions; sources of funds and financial administration generally; grants; commissions and the concept of fiscal equalisation; relationships between local authorities – Brisbane and area Water Board; relationships with State and Federal governments; consideration of selected issues based on Local Government Conference motions. (**Note:** Offered in Semester 2 in odd-numbered years only.)
Prerequisite: EPB136
Credit Points: 12 **Contact Hours:** 3 per week

■ EPB140 MACROECONOMICS

Examination of 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.
Credit Points: 12 **Contact Hours:** 3 per week

■ EPB141 MACROECONOMIC POLICY

Recent experience with monetary and fiscal policy and the regulation of the labour market, analysing their effect on unemployment, inflation, balance of payments, foreign exchanges and international trade, consumption, savings and investment.
Prerequisite: EPB142
Credit Points: 12 **Contact Hours:** 3 per week

■ EPB142 MACROECONOMIC THEORY

Development of the IS-LM model in a closed and open economy; theories of consumption, investment and money; issues relating to aggregate supply; problems of unemployment, inflation, the balance of payments and economic growth; the effects of monetary and fiscal policies and supply-side economics.
Prerequisite: EPB140
Credit Points: 12 **Contact Hours:** 3 per week

■ EPB143 MANAGEMENT SCIENCE A

The major behaviourial objectives are to introduce students to important models of operations research; students are made aware of how these models are used in accounting and/or management decision-making situations; students become familiar with solving decision problems through their own calculations and the use of a computer; students gain an appreciation of the strengths and weaknesses of the models.
Credit Points: 9 **Contact Hours:** 3 per week

■ EPB144 MATHEMATICAL ECONOMIC APPLICATIONS

Classical optimisation: Lagrange's method with variables under constrained conditions; second order conditions for optimism with Hessian Determinants, Kuhn-Tucker conditions and non-linear programming with application to theory of the firm. Integral calculus and differential calculus with application to problems of economic dynamics: consumer's equilibrium, producer's equilibrium, input-output analysis and general equilibrium. Difference equations with applications to the theories of growth and trade cycles.
Prerequisite: Business Quantitative Methods, EOB194
Credit Points: 12 **Contact Hours:** 3 per week

■ EPB150 MICROECONOMICS

The nature of the economic agents: the consumer, the firm, the manager and the government; their effects on the determination of prices; the theory of consumer behaviour, the nature of demand, preference and indifference theory, the nature of supply and the operation of the market, short and long costs, market structures and factor markets.
Credit Points: 12 **Contact Hours:** 3 per week

■ EPB151 MICROECONOMIC POLICY

A methodological framework based on the tenets of welfare economics allowing the student to assess microeconomic policy in action in both the public and private sectors. It covers such issues as efficient market outcomes, market failure, the role of the government, public goods, agriculture policy, manufacturing policy, externalities and the environment.
Prerequisite: EPB152
Credit Points: 12 **Contact Hours:** 3 per week

■ EPB152 MICROECONOMIC THEORY

Development of the theory of consumer demand showing the dual relationship between preference and demand theory; the concept of elasticity and demand analysis; the theory of the firm through extensions into production and cost theory. Monopoly and competitive pricing behaviour and the concepts of welfare economics.
Prerequisite: EPB150
Credit Points: 12 **Contact Hours:** 3 per week

■ EPB153 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.
Credit Points: 12 **Contact Hours:** 3 per week

■ EPB154 NATIONAL GOVERNMENT

The philosophical foundations, trends and reform processes across the whole spectrum of national government in Australia. Topics include: political theories and models: their relevance for Australian national government; theories of democracy: liberalism, pluralism, elitism, marxism, corporatism, socialism; constitutional framework: judicial review and division of powers; legislative processes: the contemporary committee system, scrutiny mechanisms; electoral processes: voting behaviour; public policy-making: models of public policy formulation, the budget process; public sector reforms: devolution of responsibility, the goals of improved efficiency, accountability, equity; inter-governmental relations, fiscal federalism, cooperative federalism; politics of structural reform.
Prerequisite: EPB124
Credit Points: 12 **Contact Hours:** 3 per week

EPB155 POLICY & PROGRAM EVALUATION

The process and practice of policy and program evaluation in the public sector; the nature of evaluation and techniques evaluations of selected policies and programs. The aim is to develop a critical appreciation of the strengths and weaknesses of evaluation as an integral part of the policy process.
Prerequisite: EPB159
Credit Points: 12 **Contact Hours:** 3 per week

EPB156 POLITICAL & ADMINISTRATIVE ANALYSIS

Political theory and practice: conceptualising the problems; the liberal tradition: neo-liberalism, conservatism, liberalism and their relevance for past and present political systems; reformist and radical traditions: totalitarianism, communism, socialism and social democracy; relevance for past and present political systems; theories of power and participation: Lukes, Lindblom, Pateman; contemporary case studies; theories of the liberal-democratic state: liberalism, freedom and equality, marxism and the capitalist state, theories of the liberal-democratic state: the public choice approach; corporatism and democracy: initiatives, possibilities and problems; the limits of state power and democracy; re-evaluation of basic concepts.
Prerequisite: EPB100
Credit Points: 12 **Contact Hours:** 3 per week

EPB157 PUBLIC ENTERPRISE

Public and private enterprise; a descriptive and comparative perspective; the extent and socio-economic significance of public enterprises; the development of public enterprise: to World War I; the development of public enterprise: from World War I to date; policy and planning in public enterprise; control systems and problems; personnel policies and problems; financial policies and practices; assessing the performance of public enterprise: models and criteria; privatisation and the Commonwealth; State Government and privatisation; the future of state intervention.
Prerequisites: EPB124 and either EPB140 or EPB150
Credit Points: 12 **Contact Hours:** 3 per week

EPB158 PUBLIC FINANCE

The tools of microeconomic theory applied to public sector budgeting: the tenets of welfare economics and financing public programs; the principles of taxation, the rationale for public expenditure, the benefit principle versus user-pays principle, voting procedures and preference revelation, the free rider problem, log rolling, and the prisoner dilemma, the incidence of tax and the consumption tax versus the income tax, public sector accounting.
Prerequisite: EPB152
Credit Points: 12 **Contact Hours:** 3 per week

EPB159 PUBLIC POLICY

Models of policy: types and uses of models, cyclic and sequential models; policy formulation: issue identification and agendas, adoption; legitimation and succession; Program design; implementation: a developing study, traditional models, implementation: Mazmanian, Van Meter and Horn models; determinants of policy: economic and political; current developments in policy theory; application of the model.
Prerequisite: EPB100 or for non public administration students, the completion of 8 subjects in the relevant degree program, including an introductory government or politics subject.
Credit Points: 12 **Contact Hours:** 3 per week

EPB160 PUBLIC SECTOR ECONOMICS

The principles of equity versus efficiency; traces developments in techniques of government resource allocation: benefit cost analysis, program budgeting and cost effectiveness; privatisation and corporatisation issues.
Prerequisite: EPB152
Credit Points: 12 **Contact Hours:** 3 per week

EPB162 REFORM & THE PUBLIC SECTOR

The development of the existing body of law, rules and regulations governing accountability; efficiency and effectiveness in the public sector through all administrative processes and levels of government, as well as the various mechanisms available for the purpose of review. The need for reform and review from early developments in administrative and political history through to contemporary developments.
Prerequisites: EPB112, BSB102
Credit Points: 12 **Contact Hours:** 3 per week

EPB163 RESEARCH & SURVEY METHODS

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-X and Statgraphics.
Credit Points: 12 **Contact Hours:** 3 per week

EPB164 SPATIAL & REGIONAL ECONOMICS

Location theories; theories of growth and development over space; the role of cities; regional features, problems and comparative strengths; spatial networks including city systems; regional stability and volatility.
Credit Points: 12 **Contact Hours:** 3 per week

EPB166 SPECIAL TOPIC – PUBLIC ADMINISTRATION

The aim of this subject is to help the student apply in detail the modes of analysis developed in the core subjects to specific policy areas. In this way their immediate relevance can be demonstrated and a thorough understanding of a policy area gained.
Prerequisites/Co-requisites: EPB159, EPB140 or EPB159
Credit Points: 12 **Contact Hours:** 3 per week

EPB167 STATE GOVERNMENT

Queensland history and political culture; major issues of Queensland politics: development, corruption, the gerrymander; Federal/State relations: constitution, finance, current issues; Parliament: structure, functions, reform; impact of the Fitzgerald Report; the Executive: Governor, Premier, Cabinet; power and change; the Public service: reform and future directions; conservative parties in Queensland; the ALP in Queensland; reform and the road to government; the electoral system, impact on parties, Electoral and Administrative Review Commission (EARC); other participants in the political process; the media and its role in the political process: the process of reform; Criminal Justice Commission (CJC) the mechanism

of appeal; police; reform of the criminal justice system.
Prerequisite: EPB124
Credit Points: 12 **Contact Hours:** 3 per week

EPB168 TRANSPORT & COMMUNICATION ECONOMICS
The application of microeconomic principles to transport and communication; location decision, demand, costs, pricing, investment principles, regulation, issues and policy.
Prerequisite: EPB152
Credit Points: 12 **Contact Hours:** 3 per week

EPB169 ECONOMICS OF INFORMATION
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 the supply curve; the structure of the information industry; information and industry concentration; public good characteristics of information; government intervention and economic impacts in the information industry.
Credit Points: 9 **Contact Hours:** 2 per week

EPN101 GOVERNMENT BUSINESS RELATIONS
The nature of the relationship between government and business, especially in the Australian context; 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.
Credit Points: 12 **Contact Hours:** 3 per week

EPN102 MANAGERIAL ECONOMICS
Principles of economics pertinent to 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.
Credit Points: 12 **Contact Hours:** 3 per week

EPN103 ORGANISATIONAL ECONOMICS
The internal structure operation and growth of organisations with special reference to commercial institutions. A wide range of analytical tools is used to address major issues which include the determinants of the internal structure of organisations. The relative effectiveness of the institutions of market and hierarchy in reaching decisions; the determinants of vertical integration; the determinants of the growth and functioning of internal labour markets, and the reasons for the development of firms as economic institutions.
Credit Points: 12 **Contact Hours:** 3 per week

EPN104 POLICY ANALYSIS
Government-business relationships; the formulation and implementation of policy in both government and business organisations; the policy process in both public and private sector organisations with an emphasis on the relationship between these sectors as an important determining variable. Models of the policy process are used as the major explanatory device, and government policies towards business as the context within which their relationships are examined.
Credit Points: 12 **Contact Hours:** 3 per week

EPP101 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; obsolescence and economic life; repair and major overhaul; criteria for comparing economic alternatives.
Credit Points: 6 **Contact Hours:** 3 per week

EPX100 ELEMENTS OF LABOUR ECONOMICS
Price theory and its application to the Australian labour market: demand and supply of labour; determination of wages and employment; factors influencing the relative wage structure.
Credit Points: 12 **Contact Hours:** 3 per week

EPX102 MACROECONOMIC ANALYSIS
The structure of the Australian economy; determination of income, employment and the price level; government policy in relation to aggregate labour market variables.
Credit Points: 12 **Contact Hours:** 3 per week

EPX103 POLITICAL ECONOMY OF AUSTRALIA
An overview of Australia's political economy; the processes and interest groups which affect the formulation and implementation of government policy; an introduction to important contemporary issues in the political economy of Australia.
Credit Points: 12 **Contact Hours:** 4 per week

EPX104 RESEARCH METHODS
Logic and argument; descriptive statistics: collection, presentation and analysis of data; price index numbers; introduction to computers.
Credit Points: 12 **Contact Hours:** 4 per week

ESA310 GEOLOGY
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. Field excursions as required.
Credit Points: 8 **Contact Hours:** 3 per week

ESB122 EARTH SCIENCE 1
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 rock specimens, structural exercises, and interpretation of topographic and geologic maps and aerial photographs. Field excursions to local areas of geological interest.
Credit Points: 12 **Contact Hours:** 5 per week

ESB222 EARTH SCIENCE 2
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.
Prerequisite: ESB122
Credit Points: 12 **Contact Hours:** 5 per week

■ ESB302 GEOLOGY OF THE SOUTHWEST PACIFIC

The regional geology of the SW Pacific and its tectonic framework, island arc magmatism and associated styles of mineralisation; non-living marine resources including energy sources, oceanography and meteorology, shallow marine carbonate sedimentology and the geology of the deep ocean floor. Practicals, excursions and site visits will be included.
Prerequisites: ESB122, ESB222
Credit Points: 12 **Contact Hours:** 2.5 per week

■ ESB312 MINERALOGY & OPTICAL MINERALOGY

Introductory crystallography; fundamentals of crystal chemistry, mineral stability and reactions; crystallisation, growth and habit of the geologic framework of minerals; classification of minerals; systematic treatment of the physical, chemical and structural properties of minerals; and techniques of mineral analysis. The theory and identification of minerals in transmitted and incident light; the introduction to mineragraphy with theory of reflected light; optical properties of ore minerals and identification of minerals in thin section, polished section and grain mounts. Field excursions to sites of mineralogic interest.
Prerequisite: ESB122
Credit Points: 12 **Contact Hours:** 5 per week

■ ESB342 STRUCTURAL GEOLOGY

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; field work involves mapping deformed terrain.
Prerequisites: ESB122, ESB222
Credit Points: 12 **Contact Hours:** 5 per week

■ ESB362 ECONOMIC MINERAL DEPOSITS

Mineralogy, genesis, use and value, mining methods and beneficiation of the different groups of economic materials. Major overseas deposits and Australian deposits are studied. The subject includes practical work and field and industrial visits.
Prerequisites: ESB122, ESB222
Co-requisite: ESB312
Credit Points: 12 **Contact Hours:** 5 per week

■ ESB392 FIELD TECHNIQUES & STUDIES

Methods used in the accumulation, analysis and interpretation of geological field data. Geological mapping, sampling and presentation of reports. The subject includes an extended excursion (five days or more), during which students will be required (individually or in groups) to map the geology of an assigned area. Assessment will be based on the production of a geological map to the prescribed scale, together with supporting explanatory notes. Other weekend excursions to areas of geological interest may be included.
Prerequisites: ESB122, ESB222
Credit Points: 12 **Contact Hours:** 5 per week

■ ESB422 SEDIMENTOLOGY & SEDIMENTARY PETROLOGY

Principles of sedimentation; processes of generation, accumulation and redistribution of sediments; sedimentary depositional environments; tectonism and diagenetic changes; geometric and structural components of sedimentary basins; sedimentary structures and textures; sedimentary rocks and economic deposits. The subject includes practical assignments and a short field excursion.
Prerequisites: ESB122, ESB222
Credit Points: 12 **Contact Hours:** 5 per week

■ ESB442 GEOMORPHOLOGY

The nature and origin of landforms in different environments, processes of formation and their relationship to geological features and history. Applied aspects concern problems related to groundwater and surface water, soil formation, coastal erosion and deposition, river development and environmental aspects of geology. Practical work involves exercises on above topics, air photo and topographic map interpretation and satellite imagery, plus a short field exercise
Prerequisite: ESB392
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. Thermodynamics, equilibrium and equilibrium constants, chemical potential, fugarity, activity, the phase rule and phase diagrams. Isotope geochemistry. Crystal chemistry, nature of solids, bonding forces, covalent and ionic radii, crystal structures, unit cell composition, solid solution, polymorphism, crystal field theory, trace elements in minerals. Organic geochemistry. The geochemistry of aqueous environments, water chemistry, properties of water, solutions and solubilities, pH, oxidation and reduction, water at high temperature and pressure, kinetics of water reactions. The geochemistry of magmatic, sedimentary and metamorphic rocks. Statistical rationalisation, interpretation and presentation of geochemical data. Practical aspects include preparation of geochemical maps and reports based on field work in selected localities.
Prerequisites: ESB312, MAB237, CHB182, CHB282
Credit Points: 12 **Contact Hours:** 5 per week

■ ESB462 LITHOLOGY

The description and classification of igneous, metamorphic and sedimentary rocks in thin section and hand specimen; optical mineralogy; textural identification and classification. Field excursions of short duration are normally required.
Prerequisite: ESB312
Credit Points: 12 **Contact Hours:** 5 per week

ESB517 MINERAL EXPLORATION

An introduction to a range of relevant aspects and references to develop an awareness of their importance, and to provide a foundation for further development during the students' future professional lives. The aspects introduced are: exploration programs, crustal evolution and mineralisation, ore distribution in space and time, wall rock alteration, gossans, mineral potential of the sea bed, isotope studies, geothermometry, clay technology. Additional topics are dealt with in seminars.

Prerequisite: ESB367
Credit Points: 8 **Contact Hours:** 3 per week

ESB519 GEOLOGY FOR ENGINEERING

An introduction to 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, engineering design and construction. The engineering properties of rock are considered and the effect of geologic hazards on engineering construction are examined. The course incorporates a number of case histories to demonstrate and extend the relevance of various aspects of geology to the civil engineer's workplace.

Credit Points: 6 **Contact Hours:** 3 per week

ESB520 APPLIED GEOCHEMISTRY

Techniques for establishing regional geochemical patterns. The application of geochemistry to the discovery of ore deposits and to the solution of environmental problems. Primary and secondary dispersion patterns. Optimum design of geochemical surveys and statistical rationalisation of geochemical data. The application of multipurpose regional geochemical mapping to land use evaluation and environmental impact studies. The relation of selected trace elements to health and disease in plants and animals. Practical work includes an industry-oriented field project requiring several days of field work and also case history assignments based on environmental and exploration problems.

Prerequisite: ESB403
Credit Points: 8 **Contact Hours:** 3 per week

ESB537 APPLIED GEOPHYSICS

The reduction and manipulation of geophysical data, and their interpretation in geological terms; field data acquisition and computer modelling. Experience in a variety of geophysical methods is gained during a field excursion.

Prerequisite: ESB437
Credit Points: 8 **Contact Hours:** 3 per week

ESB547 IGNEOUS & 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 composition, and texture. Interpretation of rock and mineral compositional diagrams; application of experimental investigations. Practical work examines the petrography and geochemistry of igneous and metamorphic suites. Field excursion.

Prerequisites: ESB417, ESB403
Co-requisite: ESB577
Credit Points: 8 **Contact Hours:** 3 per week

ESB557 PETROLEUM GEOLOGY

Origin and physio-chemical characteristics of petroleum (oil and gas); principles of petroleum generation, migration and accumulation through time and space; development of structural, stratigraphic combination traps; reservoir rock characteristics; use of geophysical, geochemical and radiometric techniques in petroleum exploration and reservoir characterisation; drilling techniques, well log interpretation and modern seismic-stratigraphic correlation in petroleum exploration and development; methods of primary, secondary and tertiary oil and gas recovery. Review of economics of petroleum production.

Prerequisite: ESB497
Credit Points: 8 **Contact Hours:** 3 per week

ESB577 FIELD EXCURSIONS

An extended (five or more days) excursion, with the possible addition of weekend commitments, to areas of petrologic interest with the emphasis on igneous and metamorphic petrology together with related mineralisation. Assessed on the bases of field attitude, formal examination and the production of an original written report.

Prerequisite: ESB417 **Co-requisite:** ESB547
Credit Points: 8 **Contact Hours:** 3 per week

ESB607 COAL GEOLOGY

Coal properties, classification genesis and analysis; hydro-carbon generation from coal and oil shale. Coalfield geology. Basin analysis and subsurface mapping techniques, coal production and economics. Coal hand specimen study and microscopy. Field excursions of short duration as required, together with practical assignments.

Prerequisites: ESB101, ESB102, ESB201
Credit Points: 8 **Contact Hours:** 3 per week

ESB617 MINING GEOLOGY

Search methods for economic materials, ore prediction, reserve assessment techniques. Interpretation of drilling information. Mining economics, case studies. Field excursions as required.

Prerequisite: ESB367
Credit Points: 8 **Contact Hours:** 3 per week

ESB627 HYDROGEOLOGY

Introduction to the hydrological cycle, groundwater, aquifers, chemistry and usage of water; exploration, evaluation and exploration of aquifers is followed by assessment of resources, recharge problems and contamination including sea water intrusion; practical work includes evaluation of aquifers by pump tests, flow nets finite element analysis; seepage problems and dewatering of mines and excavations.

Prerequisite: ESB453
Credit Points: 8 **Contact Hours:** 3 per week

ESB647 STRUCTURAL GEOLOGY & GEOTECTONICS

Geotectonics; structure of the earth's crust; world structural patterns; salt tectonics; deformation of lineations in folded rocks; folding of inclined surfaces, unconformities, superimposed folding; structural methods for exploration.

Prerequisite: ESB357
Credit Points: 8 **Contact Hours:** 3 per week

ESB653 ENGINEERING GEOLOGY

The application of geology to engineering; including an introduction to soil and rock mechanics, geological factors influencing engineering design and construction and the use of geological materials in construction. Foundation conditions and site investigation techniques. Case histories of various construction projects, including dams, bridges, build-

ings, roads, railways, tunnels and slopes. Field excursions to appropriate construction sites.
Prerequisites: ESB413, ESB437, ESB397
Credit Points: 8 **Contact Hours:** 3 per week

ESB677 FIELD EXCURSIONS

An extended (five or more days) excursion, with the possible addition of weekend commitments, to areas of geological interest, the emphasis being on economic geology. Students will be assessed on the bases of field attitude, the production of their individual original written report, and any other requirements of the examiner, eg.oral or written examination, seminar, etc.
Prerequisite: ESB577
Credit Points: 8 **Contact Hours:** 3 per week

ESB687 GEOLOGICAL INVESTIGATIONS

Students are required to produce an original detailed map of a designated area, collect representative samples, observe and collate relevant information (eg, structures, mineralisation, lithological variation, geomorphic variations, etc.). Appropriate laboratory and office work follows from the initial field work. Assessment based on the production of a final detailed report which will include maps. Each student is assigned to an adviser.
Prerequisites: ESB357, ESB517, ESB547, ESB497, ESB437
Credit Points: 8 **Contact Hours:** 3 per week

ESB697 MINING FEASIBILITY STUDIES

Economics of mine development and operation; problem solving involving concepts of value, cash flow, payback, depreciation, annuity, taxation, forecasting and marketing; sampling and tonnage grade calculations, cut-off grade, ore reserves and sensitivity analyses, sources and costs of capital. Practicals utilise computer programs and spreadsheets for DCFROI calculations.
Prerequisite: ESB517
Credit Points: 8 **Contact Hours:** 3 per week

ESB700 PROJECT

All students undertaking honours are required to select and undertake, in consultation with a supervisor, a substantial project in an appropriate area. Each project will be assessed on the basis of an extensive written report and an oral presentation.
Credit Points: 48

ESB701 GEOLOGICAL CASE STUDIES

Preparation of case history assignments of one or several projects from inception to completion. This includes the philosophy of the project, project development, project results. The case history should be selected to complement the student's project thesis. The study includes literature research from published and unpublished sources and if possible, interviews with project personnel. Presentation of the case history may include some or all of the following: relevant maps, sections, geochemical synthesis, and appropriate specimen material. Assessment includes the preparation of a publication quality report and an oral presentation.
Credit Points: 10 **Contact Hours:** 3 per week

ESB710 HYDROLOGY & ENVIRONMENTAL GEOLOGY

Advanced aspects of sedimentology and environmental geology, as related to rational assessment and development of economic resources. The topics that will be addressed include: historical development of sedimentology and environmental geology; sedimentological models (including facies concepts) and their application to basin analysis and mineral/fuel exploration; advanced field and laboratory-based techniques for sedimentological and environmental investigations; economic resources in sedimentary strata; role of sedimentology in scientific assessment of environmental issues, such as land degradation, dryland salting, coastal erosion, fluvial-estuarine siltation and water quality deterioration.
Credit Points: 6 **Contact Hours:** 2 per week

ESB711 ADVANCED RESOURCE GEOLOGY

Metallogenic epochs and provinces; ore genesis models; advanced basin anolysis; isotope geology; fluid inclusions and geothermometry; advanced mineragraphy; resource geochemistry; resource petrology – new materials, aspects of special rocks, alteration zones, paragenesis; resource trends, exploration philosophy; resource assessment – geostatistics, pattern drilling methodology.
Credit Points: 6 **Contact Hours:** 2 per week

ESB712 ADVANCED ENGINEERING GEOLOGY

Principles and scientific basis underlying the theory of engineering geological investigations and the application of modern techniques in analysis and investigation. Coursework is structured around engineering geology thesis topics being pursued in the current year, but includes: application of continuous seismic profiling, engineering behaviour on normally consolidated Holocene sediments, engineering geology of open pit mines, slope and underground opening stability, slope stability in tropical residual soils, geotechnical problems in damsite foundations.
Prerequisite: ESB653 or equivalent
Credit Points: 6 **Contact Hours:** 2 per week

ESB713 PETROCHEMISTRY

The petrology, geochemistry, and petrogenesis of igneous and metamorphic rocks. Topics may vary according to student interest but will include field, petrologic, geochemical, isotopic and experimental aspects of magma generation and/or metamorphism. Quantitative modelling of magmatic processes using phase chemistry, major and trace element geochemistry, stable and radiogenic isotopes. Petrographic analysis of igneous and metamorphic textures.
Prerequisites: ESB547, ESB403 or equivalent
Credit Points: 6 **Contact Hours:** 2 per week

ESB714 GLOBAL PLATE TECTONICS

Investigation of recent advances in global plate tectonics; the petrology, sedimentology, structural, geophysical and resource geology of divergent and convergent plate margins; application of plate tectonic concepts to the Australian continent.
Credit Points: 6 **Contact Hours:** 2 per week

EST219 ENGINEERING GEOLOGY

A brief introduction to the definitions and principles of geology, an appreciation of the range of rock types and the effects of weathering leading to soil formation. Identification of common mineral and rock types, the occurrence and nature of rock defects or discontinuities; the flow and control of groundwater by stratigraphy; rock structure and surface profile; and the effects of rivers and coastal wave action in erosional/sedimentary cycles.
Credit Points: 7 **Contact Hours:** 3 per week

FNB100 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; trading and pricing of money market/capital market securities; the options and futures market.
Prerequisite: ESB140
Credit Points: 12 **Contact Hours:** 3 per week

FNB101 BUILDING FINANCIAL MANAGEMENT 1

The accounting process and accounting systems in the building industry; the nature of accounts, liabilities, and proprietorship; the accounting equation and balance sheets, ledger accounts and the double entry system, the accounting period concept, and profit determination; different forms of ownership and the basic nature of taxation; budgeting.
Credit Points: 4 **Contact Hours:** 2 per week

FNB102 BUSINESS COMPUTING

Computer systems in business: hardware components, software components, micro/mini/mainframe, methods of processing, file concepts, data storage; micro-computer software – applications in business: MS-DOS, WordPerfect, dBASE III Plus, Lotus 1-2-3 (including business graphics); current business issues: security, privacy, legal issues, decision support systems, expert systems.
Credit Points: 12 **Contact Hours:** 3-4 per week

FNB104 COMPUTER APPLICATIONS IN FINANCE

Statistical analysis of share price data; statistical capabilities of a modern packages such as SPSSX, SAS, SHAZAM or LOTUS 1-2-3; application of those capabilities to data to determine finance parameters, eg. betas, returns; using statistical software to perform events studies on finance data; study of research techniques used in finance.
Prerequisites: FNB102, FNB111 or FNB112
Credit Points: 12 **Contact Hours:** 4 per week

FNB105 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; Lotus 1-2-3, Sybiz accounting software, graphics software, statistical analysis software.
Prerequisite: FNB102
Credit Points: 12 **Contact Hours:** 4 per week

FNB106 COMPUTER APPLICATIONS IN PUBLIC PRACTICE

Use of modern software tools and techniques (eg. Expert systems) as applied to selected areas of finance and commerce; reinforcement of investment analysis using software (eg. LOTUS 1-2-3); hardware and software selection process; the practicalities of negotiating contracts involving hardware and software; using and searching on-line public access databases; an understanding of the components and benefits of modern data communications and automated office technology in finance and commerce.
Prerequisite: FNB102
Credit Points: 12 **Contact Hours:** 4 per week

FNB107 FINANCE 1

The institutional framework terminology, the basic instruments, their uses and uncertainty, and the CAPM model. Practical aspects of asset management, firm valuations, investments and capital budgeting.
Prerequisite: AYB110
Credit Points: 12 **Contact Hours:** 3 per week

FNB111 FINANCE 1

The institutional framework terminology, the basic instruments, their uses and pricing. Financial mathematics, NPV, risk and returns, certainty and uncertainty, and the CAPM model. Practical aspects of asset management, firm valuations, investments and capital budgeting.
Prerequisite: AYB110
Credit Points: 12 **Contact Hours:** 4 per week

FNB112 FINANCE 2

Theoretical development of the CAPM model, the practical application of the model and its relationship to efficient market hypothesis. Capital structure, dividends, options, international finance.
Prerequisite: FNB111
Credit Points: 12 **Contact Hours:** 4 per week

FNB113 FINANCE 3

Advanced financial mathematics; advanced capital budgeting; readings in contemporary finance issues; project combining theory and practice.
Prerequisite: FNB112
Credit Points: 12 **Contact Hours:** 4 per week

FNB114 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.
Prerequisite: FNB111
Credit Points: 12 **Contact Hours:** 3 per week

FNB115 FINANCIAL INSTITUTIONS MANAGEMENT

Strategic planning and budgeting in a financial institution, performance measurement, risk management in financial institutions, gap management liquidity and capital adequacy; lending policy and credit risk, service and customer profitability; international banking. An introduction to the marketing of financial services.
Prerequisite: FNB111 and FNB123
Credit Points: 12 **Contact Hours:** 4 per week

FNB116 FINANCIAL MANAGEMENT FOR ENGINEERS

Introduction to the theory and practice of financial management in Australia; the nature of business finance and firm objectives; business structures and the organisation of the Australian capital markets; vestment of firm funds in working capital and fixed assets; portfolio management theory.
Credit Points: 6 **Contact Hours:** 3 per week

FNB117 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.
Prerequisite: FNB111
Credit Points: 12 **Contact Hours:** 4 per week

FNB120 INTERNATIONAL FINANCE

Foreign exchange; government assistance to exporters and importers; international money markets; risk measurement in foreign exchange; foreign exchange market efficiency; Eurobond and Euronote financing; international capital budgeting; cost of capital in international finance; foreign takeovers and other acquisitions; legislative aspects; accounting issues; taxation issues; international financial economics; transfer pricing.
Prerequisite: FNB1200 and FNB111 (Export Diploma students may be required to undertake additional contact in lieu of FNB100).
Credit Points: 12 **Contact Hours:** 4 per week

FNB121 ISSUES IN FINANCE

The finance framework; positive versus normative methods; Kuhn's model of progress; the resolution of traditional finance problems including ownership viewpoints; regulation and finance, market failure – the finance solution.
Prerequisite: FNB11, FNB123
Credit Points: 12 **Contact Hours:** 4 per week

FNB122 MANAGEMENT ACCOUNTING

The nature of management accounting; cost concepts; budgeting and standards for control; cost profit volume analysis; job and process costing; standard costs; direct absorption costing and their applicability to business education.
Prerequisite: AYB110
Credit Points: 12 **Contact Hours:** 3 per week

FNB123 MANAGERIAL ACCOUNTING 1

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.
Prerequisite: AYB110
Credit Points: 12 **Contact Hours:** 4 per week

FNB124 MANAGERIAL ACCOUNTING 2

Methods of corporate planning and decision making within the framework of corporate goal achievement; development of management control systems to evaluate segment and managerial performance; responsibility accounting; analysis of cost and management accounting information using formal decision models in relevant costing; pricing and transfer pricing; agency theory and other analysis techniques under certainty and uncertainty.
Prerequisite: FNB123
Credit Points: 12 **Contact Hours:** 4 per week

FNB125 PERSONAL & CORPORATE FINANCE

The Australian financial environment from both a personal and corporate point of view; goals and functions of finance; methods of project evaluation; evaluation and selection of investment projects, management of working capital; leverage; cash forecasting and cash management; financial statement analysis.
Credit Points: 4 **Contact Hours:** 2 per week

FNB126 PORTFOLIO & SECURITY ANALYSIS

CAPM; OPM; efficient market hypothesis, financial instruments; risk management
Prerequisites: FNB111, FNB112
Credit Points: 12 **Contact Hours:** 4 per week

FNB127 MANAGERIAL ACCOUNTING PRINCIPLES

Budgeting, standard costs and variance reporting for manufacturing for non-manufacturing firms; managerial performance reporting, decentralised business operations, and capital budgeting; inventory planning, control and valuation; relevant costs and decision making; project control.
Prerequisite: Accounting Information Systems
Credit Points: 9 **Contact Hours:** 3 per week

FNN100 ADVANCED CAPITAL BUDGETING

Application of the theoretical constructs developed in undergraduate finance subject to complex problems in investment appraisal. A case study approach is used with the majority of cases being drawn from real situations.
Credit Points: 12 **Contact Hours:** 3 per week

FNN101 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. The subject provides a theoretical basis allowing for evaluating policy problems in the area of financial management, a necessary prerequisite for further specialisation in this area.
Credit Points: 12 **Contact Hours:** 3 per week

FNN102 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.
Credit Points: 12 **Contact Hours:** 3 per week

FNN103 FINANCIAL MODELLING

Modelling as an organisational planning tool; the development 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.
Credit Points: 12 **Contact Hours:** 3 per week

FNN104 FINANCIAL RISK MANAGEMENT

An advanced postgraduate finance subject which covers four areas of risk management: portfolio risk, investment risk, exchange risk 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, exchange risk, new tax rules and superannuation fund performance, interest rate risk, rating agencies, duration and immunisation. Emphasis is placed on empirical research.
Credit Points: 12 **Contact Hours:** 3 per week

FNN105 INTERNATIONAL FINANCE

The theory and practice of international finance including the relationship between domestic and international capital markets, interest rate and exchange rate determination, risk management of foreign exchange, international trade finance, off-

shore investment, legislation, transfer pricing, and accounting and taxation aspects of international finance.
Credit Points: 12 **Contact Hours:** 3 per week

FNN106 MANAGERIAL ACCOUNTING HONOURS
The current research in management accounting. Topics include: costing for product pricing; behaviourial implications of costing methods; advanced variance analysis; aspects of agency theory; advanced transfer pricing; structure of the firm and its impact on managerial accounting; contemporary developments.
Credit Points: 12 **Contact Hours:** 3 per week

FNN110 MANAGERIAL ACCOUNTING ISSUES A
The theoretical issues associated with the design, operation and evaluation of management accounting systems. Topics include behaviourial aspects of responsibility accounting, performance evaluation, measurement of managerial performance, decentralisation and organisational structure and cost control as it pertains to organisational structure. The subject consists of formal seminars, problem solving and case studies.
Credit Points: 12 **Contact Hours:** 3 per week

FNN111 MANAGERIAL ACCOUNTING ISSUES B
The practical managerial accounting issues currently facing contemporary management. Topics include: quality development and strategic product development, productivity control, advanced budgeting techniques, program budgeting, and management control systems.
Credit Points: 12 **Contact Hours:** 3 per week

FNN112 SPECIAL TOPIC – MANAGERIAL ACCOUNTING & FINANCE
This subject is offered when required and normally examines issues of significance in the managerial accounting and finance areas.
Credit Points: 12

FNN300 ACCOUNTING 2 (PY)
This subject aims to satisfy the Professional Year syllabus of the Institute of Chartered Accountants in Australia in relation to applied areas of managerial accounting, finance and auditing. The subject builds upon the undergraduate framework in these areas. The topics covered are revised annually by the Institute with a focus on applied practice.
Credit Points: 12 **Contact Hours:** 3 per week

FNN301 MANAGEMENT ACCOUNTING (PY)
This subject 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.
Credit Points: 12 **Contact Hours:** 3 per week

FNP101 QUALITY COST ANALYSIS
Programs in quality assurance related to costing procedures and terminology; quality costs as defined in AS2561; the design and use of cost control systems to conform with the standard.
Credit Points: 6 **Contact Hours:** 3 per week

HMB101 MOVEMENT FOR YOUNG CHILDREN
Examination of the predisposition of young children towards rhythm in movement and sound; identification of how this might be used to enhance their early education; play elements in relation to the above; situations in which creative learning experiences might emerge; workshops.
Credit Points: 4 **Contact Hours:** 2 per week

HMB102 INTRODUCTION TO HUMAN MOVEMENT
Rhythmic experiences: range of rhythmic experiences including folk dance, singing games, rhythmic patterns with music and percussion. Games and gymnastics activities; basic skills in games and gymnastics with emphasis on improvisation in play situations.
Credit Points: 8 **Contact Hours:** 3 per week

HMB103 GAMES FOR RECREATION
Development of the individual skills and techniques of the game; application of the rules and umpiring procedures. Students are expected to participate in two of the following games: volleyball, tennis, squash.
Credit Points: 4 **Contact Hours:** 2 per week

HMB104 PERSONAL HEALTH & FITNESS
Health; development of a personal health program; issues, techniques and topics of current personal and societal health concerns. Fitness: theoretical basis of physical fitness; appraisal of personal fitness; development of fitness programs; mandatory practical involvement.
Credit Points: 4 **Contact Hours:** 2 per week

HMB105 OUTDOOR PURSUITS
Opportunities for students to participate in a program of outdoor activities incorporating the basic skills and knowledge necessary for meeting environmental challenges. Physical skills and techniques are presented in a logical progression to ensure safe participation in future outdoor education activities.
Credit Points: 8 **Contact Hours:** 3 per week

HMB106 DANCE FOR RECREATION
Community dance: development of basic techniques in square, round and bush dancing, latest trends in popular dance. Ballroom dance: basic figures in ballroom dancing such as cha-cha, quickstep, modern waltz. Aerobic dance: rhythmic activities for personal fitness.
Credit Points: 8 **Contact Hours:** 3 per week

HMB107 LEISURE EDUCATION
Leisure and recreation; leisure and the individual; leisure and society; future directions for leisure; all-of-life sport.
Credit Points: 4 **Contact Hours:** 2 per week

HMB108 TEACHING GAMES & SPORT
Skill recognition (catching, throwing, striking) development of physical skills; skill analysis and teaching; study of a selected sport; certification in coaching school sports; presentation of a coaching workshop.
Credit Points: 8 **Contact Hours:** 3 per week

HMB201 PHYSICAL EDUCATION I
Foundations of growth and development in primary children. Understanding the factors in physical skill development. Knowledge of the content of primary physical education curriculum and processes in teaching such content. Development from basic lesson

planning to comprehensive and sequenced term planning.
Credit Points: 8 **Contact Hours:** 3 per week

HMB202 PHYSICAL EDUCATION 2
Theoretical, practical and organisational requirements of teaching physical education in primary schools. Students cohesively combine elements of the curriculum in fieldwork situations which is germane to preparation of teachers of physical education, both specialist and non-specialists. At the outcome, students will be able to consider the total programming aspects of physical education curriculum holistically.
Credit Points: 8 **Contact Hours:** 3 per week

HMB203 FOUNDATIONS OF PHYSICAL ACTIVITY
The possibilities of improving life through physical activity are unlimited and this foundation subject aims to present all sides of physical education viewed from different vantage points. The concern is with the how and why of human movement, whether this be in the school setting or on the sports field, for competition or for recreation, for enjoyment or for money.
Credit Points: 8 **Contact Hours:** 3 per week

HMB204 PHYSICAL ACTIVITY STUDIES 1
Students study one of the following four strands: the science of physical activity incorporating physiology, anatomy and biomechanical principles which govern the body's movements in a variety of movement situations; a dance strand which enables students to understand basic dance technique and choreographic principles to encourage the building of confidence in their own ability to move expressively; a sport in society strand which synthesises the philosophical, sociological and cultural forces which have influenced the role and relevance of play, games and sport in society; a motor development and skill acquisition strand which will incorporate theoretical and applied aspects of motor learning in such a way that appropriate methods for meeting the particular needs of each learning situation are developed.
Credit Points: 12 **Contact Hours:** 3 per week

HMB205 PHYSICAL ACTIVITY STUDIES 2
The subject matter is offered in four strands to enable students to gain an indepth knowledge of one of the following strands: Science of Physical Activity enables students to gain experience assessing the components of physical fitness in the laboratory and then implement these skills in the community; Adapted Physical Activity incorporating designing community programs for handicapped and disabled people; Dance which enables students to acquire the rudiments of a modern dance technique and to relate it to performance, individually or in a group; Sport in Society from a sociological perspective that examines the inter-relationship with other societal institutions in its role as a social force and a cultural phenomenon.
Credit Points: 12 **Contact Hours:** 3 per week

HMB240 HEALTH EDUCATION
An understanding of what is involved in life-long healthy living and the role health education plays in promoting this. Curriculum development in primary school health education and the investigation of selected content areas of the primary school health education curriculum which highlights the importance of attitudes, values, beliefs and practices in the adoption of healthy behaviour.
Credit Points: 8 **Contact Hours:** 3 per week

HMB242 HEALTH STUDIES 2
This level two subject is offered in parallel strands. Students have the option to follow a strand focussing on individual health, or a strand focussing on health as a community issue. Students choosing to follow the individual strand focus on their development of a personal action control as a procedure for maintaining their health. Students choosing to follow the community health strand focus on occupational and environmental health issues in the community. This subject expands some of the issues raised in the level one subject.
Credit Points: 12 **Contact Hours:** 3 per week

HMB243 HEALTH STUDIES 3
This level three subject extends in depth some of the issues addressed in the level one and two subjects. The dual strand developed in the level two subject continues, following an individual or a community focus. In the individual strand the focus narrows to look at the individual health status of children. In the community strand the focus narrows to look at drug issues and their use in Australia.
Credit Points: 12 **Contact Hours:** 3 per week

HMB303 ADOLESCENT HEALTH & LIFESTYLE
An introduction to the health influences and needs of adolescents: importance of a sound personal health foundation during the growing years for the prevention of health problems during adulthood; relationship between genetic and environmental factors that influence the health of children and adolescents; health services in the community used in the promotion of health during adolescence including support groups.
Credit Points: 10 **Contact Hours:** 3 per week

HMB305 PERSONAL HEALTH
Examination of the range of factors influencing personal health including lifestyle and a range of social, economic and environmental factors. The subject takes a holistic perspective on personal health.
Co-requisite: PUB327
Credit Points: 12 **Contact Hours:** 3 per week

HMB309 MOTOR DEVELOPMENT & SKILLS ACQUISITION
Identification of key terms in motor development and skill acquisition; evaluation of different classification systems; classification of skills using a variety of criteria; awareness of different stages of motor development; interpretation of performance curves; theoretical bases of information processing models; analysis of mechanisms involved in skilled performance.
Credit Points: 12 **Contact Hours:** 5 per week

HMB310 PHYSICAL EDUCATION CURRICULUM & TEACHING STUDIES 1
Builds on CUB301 to give a greater understanding of the nature of physical education as an applied curriculum area. Provides insights into relevant Queensland syllabus and curriculum documents, develops competencies in planning and teaching and makes close links with teaching practice.
Prerequisites: CUB301 and at least 48 credit points in each relevant discipline area.
Credit Points: 8 **Contact Hours:** 3 per week

HMB311 ANATOMY & BIOMECHANICS
Recognition of skeletal structures; differences in the structure and functions of human joints, muscle attachment; actions of muscles as related to major joints; why certain activities are anatomically harm-

ful; mechanical principles of human movement; diagnosis of errors in technique; isolation of basic elements common to a variety of performance skills.
Credit Points: 12 **Contact Hours:** 4 per week

HMB312 EXERCISE PHYSIOLOGY
The structure and function of body systems; key terms and principles relating to specific aspects of systemic physiology; application of general physiological principles to conditions of work; interpretation of a variety of tests and procedures used in evaluating physique, fitness, effects of training and exercise.
Credit Points: 12 **Contact Hours:** 5 per week

HMB313 FOUNDATIONS OF PHYSICAL EDUCATION
Historical events which have shaped developments in contemporary physical education; demonstration of confidence and competence in the communication of philosophical and historical aspects of education and sport; appreciation of the nature and scope of human movement studies, including physical education, leisure and sport.
Credit Points: 12 **Contact Hours:** 4 per week

HMB314 PERFORMANCE SKILLS 1
Application of scientific principles to the analysis and development of techniques for swimming and track and field; performance of all aspects of the major swimming strokes and track and field events; instructional strategies and motivational, conditioning and training activities; development of activity programs for various ability levels; application of event rules; water rescue.
Credit Points: 12 **Contact Hours:** 6 per week

HMB315 PERFORMANCE SKILLS 2
Various game forms; analysis of fundamental game skills; identification of problem areas in skill developments; application of relevant skills to suit game situation; application of sport rules; application of relevant strategies for teaching and coaching selected sports for a variety of age groups.
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 in the performance of excellence in gymnastics; performance of routines incorporating a variety of gymnastic and dance skills on floor/apparatus; recognition of unsafe practices.
Credit Points: 12 **Contact Hours:** 6 per week

HMB317 OUTDOOR EDUCATION
Appreciation of 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.
Credit Points: 12 **Contact Hours:** 6 per week

HMB318 RESEARCH IN MOVEMENT STUDIES
Data collection, presentation, and interpretation; test design and administration; basic computer programming and analysis; elementary research procedures and design.
Prerequisites: HMB309, HMB311 or HMB312
Credit Points: 12 **Contact Hours:** 3 per week

HMB319 SPORTS PSYCHOLOGY
The role of the mind in sports performance is being increasingly recognised and a position has been reached where sport psychologists are in evidence wherever important competition is taking place. Psychological factors to be examined include planning for competition, the build up to competition, intervention strategies used during competition and restructuring goals for the next performance. Sports psychology complements the physical aspects of skill and fitness and gives the student a better insight into the total person and the total performance.
Prerequisite: HMB309
Credit Points: 12 **Contact Hours:** 3 per week

HMB320 PHYSICAL EDUCATION CURRICULUM & TEACHING STUDIES 2
Studied in association with CUB302. Provides opportunities for consideration and practical application of broad curricular teaching principles and systems policies within the more specific context of this curriculum area. As with CUB302, establishes principles which will be used to guide school experience during teaching practice and also as a beginning teacher.
Prerequisite: HMB310
Co-requisites: CUB302, EDB302
Credit Points: 12 **Contact Hours:** 3 per week

HMB321 SOCIOLOGY OF SPORT
How sport affects individuals, the local community, and society in general; sport and leisure from a sociological standpoint; commercialism; politics in sport; sport in Australia: origins and development of our sporting ethos.
Credit Points: 12 **Contact Hours:** 3 per week

HMB322 ADAPTED PHYSICAL EDUCATION
The causes of short-term and long-term disorders and disabilities from medical and developmental perspectives; procedures for assessing the range of movement and current level of skills; individualised program planning for most disability groups.
Prerequisite: HMB309
Credit Points: 12 **Contact Hours:** 3 per week

HMB323 SPORT & FITNESS DEVELOPMENT
Practical procedures and laboratory work; testing and evaluating; exercise prescription; design and development of conditioning programs.
Prerequisite: HMB312
Credit Points: 12 **Contact Hours:** 3 per week

HMB324 ADVANCED SKILL LABORATORIES
Investigation of an advanced theoretical structure and application to a performance activity of their choice.
Prerequisites: Compulsory Level 1 subjects in Performance Skills.
Credit Points: 12 **Contact Hours:** 3 per week

HMB325 INDEPENDENT STUDY
Students are required, with guidance, to propose, carry out and report on some achievable enquiry which may take a variety of forms, from a specialised development of previously undertaken subjects to a supplementary option chosen to expand the scope of their studies in human performance and physical education.
Prerequisites: Compulsory Level 1 subjects.
Credit Points: 12 **Contact Hours:** 3 per week

HMB326 HUMAN PERFORMANCE ANALYSIS

Various methods of conducting performance analysis; deductive and inductive approaches to analysis; analysis of selected activities using observation techniques, video tapes of performance, sequential photographs, film.

Prerequisite: HMB311

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

HMB327 COMPUTERS IN SPORT & PHYSICAL EDUCATION

This subject is designed to familiarise students with the benefits of applying microcomputer technology to the field of physical education. Throughout the subject students will be introduced to, and provided with, an opportunity to use and evaluate a wide variety of computer software programs which are presently being used by innovative physical educators throughout the world.

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

HMB328 COMPARATIVE PHYSICAL EDUCATION

Provides an international perspective; comparative analysis of systems of physical education and sport in selected countries such as the Soviet Union, People's Republic of China, South Africa and Australia; sport issues in the twentieth century.

Prerequisite: HMB313

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

HMB329 ANTHROPOLOGY OF PLAY

Play theories and functions of play in society; case studies; Australian Aborigines; North American Indians; Polynesian Societies; play and contest as ritual.

Prerequisite: HMB313

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

HMB330 PHYSICAL EDUCATION CURRICULUM & TEACHING STUDIES 3

Last in the Curriculum and Teaching Studies series with a major focus on contemporary issues and emerging trends pertaining to curriculum development in this curriculum area. Includes study of advanced planning and teaching strategies and provides opportunities for application of planning and teaching skills during practice teaching.

Prerequisites: HMB310, HMB320, CUB302

Credit Points: 8 **Contact Hours:** 3 per week

HMB332 HEALTH RELATED FITNESS

The role of health related fitness in the community and in the school as it contributes to the attainment of optimal health.

Prerequisite: PUB327

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

HMB333 CHILD & ADOLESCENT HEALTH

Child and adolescent health and the wide range of factors that impact on health.

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

HMB334 FUNCTIONAL ANATOMY & KINESIOLOGY

The relationship between structure and function of the musculoskeletal and nervous systems is explored in relation to human movement and body mechanics; observation and development of techniques necessary for detailed kinesiological analysis.

Prerequisite: HMB311

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

HMB335 INDIVIDUAL GAMES & SPORTS

These sports offer a different perspective from team games by demanding a higher level of self-directed involvement. Students will be able to specialise in three sports selected from the range offered which may include activities such as archery, golf, orienteering, fencing, squash and table tennis.

Credit Points: 12 **Contact Hours:** 4 per week

HMB336 LEISURE & AUSTRALIANS

The need for leisure education and the associated problems of finance, facilities, ignorance and apathy are examined; the concept of leisure-time, activity and value is discussed; current trends and issues in leisure behaviour patterns in Australian society are identified.

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

HMB340 SPECIAL PHYSICAL EDUCATION

Disability; cause, etiology and motor or intellectual limitations. Evaluating procedures: use of existing test batteries; designing test batteries for specific purposes. Teaching strategies and skills: designing and implementing programs, using appropriate techniques for specific disability groups.

Credit Points: 8 **Contact Hours:** 3 per week

HMB410 PHYSICAL EDUCATION CURRICULUM: SECONDARY

Examination of the factors responsible for current physical education curriculum development. Emerging trends are studied to highlight the implications for physical education programs. The subject challenges the student to design a secondary curriculum that reflects current educational trends.

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

HMB411 PHYSICAL EDUCATION CURRICULUM: PRIMARY

Philosophical background; growth characteristics of the primary school child with particular reference to their implications for physical education; orientation of physical education into the primary school program; structuring the learning environment.

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 psycho-motor theories.

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

HMB441 SOCIOLOGY OF SPORT

Towards 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.

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. These are discussed against a school and club setting.

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

HMP014 SCHOOL HEALTH EDUCATION

Introduction to the field of health education and the roles, functions and areas of responsibility of the health educator; specific focus on nature, scope and place of health education in the total school environment.

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.

Prerequisite: HMP014

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

HMP420 PHYSICAL EDUCATION CURRICULUM & TEACHING STUDIES A

Development of competencies relevant to the effective planning and teaching of physical education in secondary schools. The most important contribution is to provide a conceptual framework for alternatives in teaching strategies and to give starter plans which can be successfully modified. Particular attention is paid to management and control in the outdoors, safety, maximum participation and teaching for cognition in practical activities.

Prerequisite: Appropriate discipline studies in the undergraduate degree.

Co-requisite: EDP450

Credit Points: 24 **Contact Hours:** 6 per week

HMP421 PHYSICAL EDUCATION CURRICULUM & TEACHING STUDIES B

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

Prerequisite: HMP420 **Co-requisite:** EDP451

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

HMP423 OUTDOOR EDUCATION CURRICULUM & TEACHING STUDIES C

This Curriculum C subject provides opportunities for students with an appropriate background to prepare to teach outdoor education. It develops skills and understandings in planning, assessment and teaching and learning strategies, and builds on the general principles of the Curriculum A and B groups of subjects.

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

HRB100 ADVANCED ORGANISATIONAL BEHAVIOUR

Investigation and analyses of major organisational behaviour issues undertaken within a context of organisational effectiveness and the quality of work life; analysis of relevant literature; application of concepts via case studies, surveys and/or projects.

Prerequisite: HRB130 or HRN108

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

HRB101 ADVANCED TRAINING & DEVELOPMENT

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: planning, organising staffing, direct controlling; the competencies of a trainer. Experiential and project activities.

Prerequisite: HRB120

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

HRB102 ADVOCACY & NEGOTIATION

Preparation and conduct of various types of negotiated industrial cases; preparation of tribunal documentation; preparation and presentation of cases before industrial tribunals.

Prerequisite: HRB114

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

HRB103 EMPLOYMENT REGULATION & ADMINISTRATION

Survey of the key legislation, regulations and agreements which impact on work and therefore in personnel management and industrial relations; the consequences of these requirements on the administration of human resources.

Prerequisite: HRB131, HRN104

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

HRB104 FOUNDATION HRM COMPETENCIES

The personal and interpersonal competencies (in both cognitive and affective domains) which form the foundations from which a HRM practitioner must operate. It aims to develop knowledge of, and skills in, self-awareness, personal and interpersonal development and interpersonal processes. It emphasises the design of process to achieve outcomes.

Prerequisite: HRB130

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

HRB105 HUMAN RESOURCES & THE ORGANISATION

The interface of human resources with the organisation and its requirements; concepts and processes for analysing jobs; human resources planning, job evaluation, performance appraisal and remuneration processes; data. A substantial level of analytical and professional competence is expected in this subject.

Prerequisite: HRB131 or HRN104

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

HRB106 INDEPENDENT STUDY IN MANAGEMENT

A review of an organisation by examining some aspects of its management processes and practices; the review leads to the preparation of a report for the organisation.

Prerequisite: BSB102

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

HRB107 INDEPENDENT STUDY HRD

This subject enables students to demonstrate a competence in directing their own learning. This is essential for professionals who must subsequently keep themselves up-to-date in their area of expertise. To this end, students either individually or in small groups, within an approved content area, undertake one or several learning activities with the approval of a supervisor. Appropriate activities could include literature review, research (mini-thesis), project, practicum (work placement) or anything else deemed acceptable by the supervisor.

Prerequisite: As determined by the supervisor.

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

HRB108 INDEPENDENT STUDY HRM

This subject will enable students to demonstrate an ability to direct their own learning, a key competence for professionals who must subsequently keep themselves up-to-date in their area of expertise. To this end, students either individually or in small groups, undertake one or several learning activities with the approval of a supervisor. Appropriate activities could include literature review, research (mini-thesis),

project, practicum (work placement), or anything else deemed acceptable by the supervisor.
Prerequisite: As determined by the supervisor.
Credit Points: 12 **Contact Hours:** 3 per week

HRB109 INDUSTRIAL DEMOCRACY

The theoretical basis for the range of industrial democracy schemes which have been developed. In particular, it focuses how such factors as employment relationships, organisation of work and reward systems have been generated.
Prerequisite: HRB114
Credit Points: 12 **Contact Hours:** 3 per week

HRB110 INDUSTRIAL LAW

The development and role of law in industrial relations in Australia; industrial relations legislation; common law contract of employment; industrial torts; other statute and case law related to the above.
Prerequisite: HRB131
Credit Points: 12 **Contact Hours:** 3 per week

HRB111 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.
Credit Points: 6 **Contact Hours:** 3 per week

HRB112 INDUSTRIAL RELATIONS

Structure and development of the industrial relations system in Australia; federal and state conciliation and arbitration systems, authority and extent of jurisdiction; industrial relations issues such as wages, conditions, claims and disputes; role of trade unions, the employers' and employees' representatives, the commission, awards and agreements; acts, regulations and workers' compensation; law of master and servant; strikes and lockouts; public liability insurance; law of professional negligence.
Credit Points: 4 **Contact Hours:** 2 per week

HRB113 INDUSTRIAL RELATIONS HISTORY

The emergence and development of labour movements and employer groups; the ideas which gave rise to and changed these institutions. Although the focus is on Australia, relevant European and North American experience is included.
Prerequisite: HRB131
Credit Points: 12 **Contact Hours:** 3 per week

HRB114 INDUSTRIAL RELATIONS INSTITUTIONS

The history, structure, functions and role of the industrial tribunal system in federal and state jurisdictions, employer associations and unions.
Prerequisite: HRB131
Credit Points: 12 **Contact Hours:** 3 per week

HRB115 INDUSTRIAL RELATIONS POLICIES

Examination of the most significant policies of governments, employer bodies and unions; the development and influence of contemporary policies by these institutions.
Prerequisite: HRB114
Credit Points: 12 **Contact Hours:** 3 per week

HRB116 INNOVATION & ENTREPRENEURSHIP

An examination of the development of both large and small firms; innovation in existing firms; sources of funds; government support; business planning; writing a business plan.
Prerequisite: BSB102
Credit Points: 12 **Contact Hours:** 3 per week

HRB118 INTERNATIONAL MANAGEMENT

The management of multinational enterprises; management across national borders and in different cultures; corporate-government relations and conflicting regulations; international marketing; international industrial relations.
Prerequisite: BSB102
Credit Points: 12 **Contact Hours:** 3 per week

HRB119 INTERVIEWING & COUNSELLING

Development of practieal skills in aspects of employment interviewing through an introduction to the theory and principles of interviewing, and supervised experience. The characteristics of the interview situation; the interviewer, the interviewee and their inter-relationships. Interview areas include the personal interview; information seeking and the employee-personnel interview: recruitment, appraisal, disciplinary and exit. Personality theory, guidance, counselling theory and techniques. An emphasis on understanding and practising the human skills required to facilitate the development of others, either in individual interaction or group interaction.
Credit Points: 12 **Contact Hours:** 3 per week

HRB120 INTRODUCTORY TRAINING & DEVELOPMENT

The knowledge and competencies required of a beginning trainer or an occasional trainer. Appropriate theories and research, and skill development. Major topics include: training in Australia; instructional models and theories of learning; training needs analysis; task analysis process; basic training techniques – the information giving model, the discussion model; training aides/audiovisuals; algorithms; administering a training course; evaluating learning, writing and scoring test items; follow-up training.
Prerequisite: The completion of the equivalent of the first year of the course in which the student is enrolled or Introduction to Management
Credit Points: 12 **Contact Hours:** 3 per week

HRB121 MANAGEMENT (ENGINEERS)

An introduction to the theory and practice of management, laying a foundation on which to build managerial knowledge and techniques through a lifetime career. Functions of management; planning, organising, leading and controlling presented in the framework of a systems approach to decision making.
Credit Points: 4 **Contact Hours:** 2 per week

HRB122 MANAGEMENT (CHEMISTS)

An introductory study of management including the functions of management, leadership, motivation and supervision of staff, and employee relations.
Credit Points: 4 **Contact Hours:** 2 per week

HRB125 MANAGEMENT POLICY & STRATEGY

The process of strategy as applied to modern management in both the public and private sectors. Attention is given to the organisational context, to the processes involved in the formulation of policy and strategy, and the problems associated with moving from advocacy

to implementation to review and evaluation of organisational performance.
Prerequisites: BSB102, HRB131 or HRN104
Credit Points: 12 **Contact Hours:** 3 per week

HRB126 MANAGEMENT PROCESSES

The skill domain of management, including self-management; techniques used to assist in the task of managing.
Prerequisite: BSB102
Credit Points: 12 **Contact Hours:** 3 per week

HRB127 MANAGEMENT THEORY & ISSUES

In consideration of a number of the theories which have been advanced to explain the tasks and roles of managers; recent developments in regard to management and organisational methods as well as some of the issues confronting managers.
Prerequisite: BSB102
Credit Points: 12 **Contact Hours:** 3 per week

HRB128 OCCUPATIONAL HEALTH & SAFETY MANAGEMENT

The physical working environment and its physical and psychological impact on staff members; major occupational health and safety issues and their management; ergonomics, human-machine interface and physical aspects of job design; competencies in conducting safety audits, designing safety programs and the management of the occupational health and safety functions.
Prerequisites: HRB131, HRN104
Credit Points: 12 **Contact Hours:** 3 per week

HRB129 OPERATIONS & PRODUCTION MANAGEMENT

Types of production and their implications for management; the management and control of organisational systems; techniques for managing inventories and raw materials, plant layout, work and production scheduling, and quality control.
Prerequisite: BSB104 or HRN104 (may be done as a co-requisite)
Credit Points: 12 **Contact Hours:** 3 per week

HRB130 ORGANISATIONAL BEHAVIOUR

Introduction to human behaviour in work and other settings; actions designed to enhance individual outcomes: satisfaction, commitment, and/or the human inputs into organisational outcomes: effectiveness, productivity, attendance, retention, flexibility. It is also foundational material for any client or service orientation to customers of the organisation. The development and application of strategies and practices impinging on the human component of business in the broadest sense, essential to anyone intending to influence the behaviour of others.
Credit Points: 12 **Contact Hours:** 3 per week

HRB131 PERSONNEL MANAGEMENT & INDUSTRIAL RELATIONS

The broad range of influences that impact on personnel management and industrial relations, and the theoretical and conceptual foundations upon which personnel management and industrial relations is based.
Credit Points: 12 **Contact Hours:** 3 per week

HRB132 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 are discussed in order to equip students with basic skills necessary for starting a successful small business.
Credit Points: 4 **Contact Hours:** 2 per week

HRB133 PUBLIC SECTOR MANAGEMENT

Management and administration in the context of the public sector; public sector enterprises; program evaluation and review; government-business relations.
Prerequisite: BSB102
Credit Points: 12 **Contact Hours:** 3 per week

HRB134 RECRUITMENT & SELECTION

This subject has an applied focus but draws heavily on conceptual and research foundations and job analysis competencies developed in HRB105. Contextual issues of the legal and social environment as well as labour markets are considered. Recruitment: is examined from the perspective of both the organisation and the individual; recruitment strategies; selection techniques including aptitude and ability testing, work samples, assessment centres and interviews; technical issues including validity, reliability and utility analysis.
Prerequisite: HRB105
Credit Points: 12 **Contact Hours:** 3 per week

HRB135 SMALL BUSINESS MANAGEMENT

The development of small business; the interface between large and small business; government policy and small business; managing small enterprises; survival strategies; practical techniques and operations.
Prerequisite: BSB102
Credit Points: 12 **Contact Hours:** 3 per week

HRB136 STRATEGIC HUMAN RESOURCE MANAGEMENT

The capstone of the HRM major; the primary objective is to integrate HR concepts and issues into the wider business and environmental context. In addition, a range of historical features, professional and ethical matters are considered. An experiential approach based in cases and or simulations is adopted.
Prerequisite: Completion of five subjects within the HRM major.
Credit Points: 12 **Contact Hours:** 3 per week

HRB137 WAGES & EMPLOYMENT

The forces which determine 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 are addressed.
Prerequisite: HRB131
Credit Points: 12 **Contact Hours:** 3 per week

HRB138 WORK & SOCIETY

Work and work organisations in industrialised society and their relationship with industrial relations processes and structures. Examination of work, work organisations and relations at work from a range of perspectives. The influence of control over work, work practices and technological change in an industrial relations context.
Prerequisite: HRB131
Credit Points: 12 **Contact Hours:** 3 per week

HRB140 MANAGEMENT & TECHNOLOGY

Exploration of the links between technical process, product innovation and management structure, policy and practice; emphasises the consequences of changes

to technologies for the organisation, for example, robotics.
Prerequisite: BSB102
Credit Points: 12 **Contact Hours:** 3 per week

■ HRB142 PERSONNEL 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 discussed in order to equip students with basic skills necessary for starting a small business.
Credit Points: 4 **Contact Hours:** 2 per week

■ HRB144 PUBLIC SECTOR INDUSTRIAL RELATIONS

Examination of industrial relations within the public sector in both Federal and State arenas, in particular the relationship between the various agencies of the state and public sector units.
Prerequisite: HRB114
Credit Points: 12 **Contact Hours:** 3 per week

■ HRB146 SPECIAL TOPIC HRM

Will be offered as required. The aim of the subject is to permit an in-depth examination of an issue of importance to HRM. Hence, the actual content will vary, depending on the issue under examination.
Prerequisite: HRB131
Credit Points: 12 **Contact Hours:** 3 per week

■ HRB400 CURRENT ISSUES IN MANAGEMENT

Advanced management issues and practices. Content depends on which management issues are significant at the time and the special expertise of staff, including visiting scholars and distinguished business leaders.
Credit Points: 12 **Contact Hours:** 3 per week

■ HRB401 STRATEGIC MANAGEMENT

Introduces Honours students to management strategy and decision-making concepts and skills; intended for students who have not completed at least a management minor at undergraduate (those who have need to take the subject Current Issues in Management). Emphasising the strategic viewpoint, the subject includes a critical assessment of: management theory and issues; operational management; and management as a skill domain.
Credit Points: 12 **Contact Hours:** 3 per week

■ HRB402 PUBLIC PERSONNEL MANAGEMENT

Principles of public sector management; public sector staffing structure; planning; organising/staffing; grievance resolution; reviews; development; personnel management issues; revision.
Prerequisite: EPB100
Credit Points: 12 **Contact Hours:** 3 per week

■ HRB404 PRINCIPLES OF MANAGEMENT

Introduction to the concepts, principles and practical techniques involved in managing organisations; strategic and operational planning; the organising function; staffing of organisations; motivation and effective leadership; the dynamics of groups and the management of organisational culture; the design and operation of effective control systems; the management of quality; managing change and conflict.
Credit Points: 9 **Contact Hours:** 2 per week

■ HRN100 ADVANCED INDUSTRIAL LAW

Analysis of the legal aspects of a particular industrial relations problem from an Australian perspective; sociological approaches to law; the legislative context of the problem or issue in one or more countries; the international context, eg. ILO conventions, EEC directives, European Court decisions from a legal viewpoint.
Credit Points: 12 **Contact Hours:** 3 per week

■ HRN101 ADVANCED THEORY & COMPARATIVISM

Theoretical basis of industrial relations; international industrial relations and Australian comparisons; a theoretical and comparative issue or problem, eg. union or employer organisation, strikes, health and safety.
Credit Points: 12 **Contact Hours:** 3 per week

■ HRN102 INDUSTRIAL RELATIONS METHODOLOGY

Basic computer skills; data bases and sources of information; a bibliographical exercise; design of a research program; introductory fieldwork.
Credit Points: 12 **Contact Hours:** 3 per week

■ HRN103 INDUSTRIAL RELATIONS PLANNING

The formal planning and framework of industrial relations policies and strategies; the content of industrial relations planning, eg. technology, training, superannuation; the relationship of planning to the political and economic environment, including industrial restructuring, capital formation and investment, employment and productivity.
Credit Points: 12 **Contact Hours:** 3 per week

■ HRN104 INTRODUCTION TO MANAGEMENT

The functions and roles of managers; frameworks of concepts and principles; practical applications of those concepts and principles; 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 a range of relevant academic disciplines.
Credit Points: 12 **Contact Hours:** 3 per week

■ HRN105 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; different systems of regulation in the employment area; negotiating skills; the resources required for mobilising change in this area.
Credit Points: 12 **Contact Hours:** 3 per week

■ HRN106 MANAGEMENT, TECHNOLOGY & SOCIAL CHANGE

This subject provides a critical and cross-cultural review of the development of management theory and an analysis of management within complex organisations. The course focuses on managers as participants in an organisational dynamic that is both influenced by and influences such factors as the current state of technology, labour markets, world markets and government and community pressures.
Credit Points: 12 **Contact Hours:** 3 per week

■ HRN107 ORGANISATIONAL PSYCHOLOGY

The nature of organisations and the way in which individuals, groups and leaders function within or-

ganisations. Theories of organisational structures; the determinants of organisational structure; an examination of climate and culture withim organisations. The places of the individual within the organisation and the assumptions underlying the psychological theories which guide the treatment of employees. Traditional and recent developments in leadership theory. The course ends with a consideration of the future of organisations and changes.
Credit Points: 12 **Contaet Hours:** 3 per week

■ HRN108 PEOPLE IN ORGANISATIONS

The internal operation of organisations and the behaviour of those in them; exploration of a range of theories and models of individual and group behaviour. This exposure encourages students to critically evaluate such theories and models, and their implications for management behaviour.
Credit Points: 12 **Contact Hours:** 3 per week

■ HRN110 THESIS

Synthesis and application of studies undertaken in the course. Topic may be taken from any aspect of industrial relations. Formulation of thesis undertaken in conjunction with supervisor and other academic staff.
Credit Points: 144

■ HRP100 COMPARATIVE INDUSTRIAL RELATIONS

The main structures, processes and contexts relevant to industrial relations in selected industrialised societies; the different ways in which industrial relations has developed and operates.
Prerequisite: HRB131
Credit Points: 12 **Contact Hours:** 3 per week

■ HRP102 HUMAN FACTORS IN QUALITY

The relationship between people in the organisation and its technical structure and system, and behaviourial concepts applied to the management of quality; intrapersonal, interpersonal and social factors including leadership, motivation, attitudes, values, learning and organisational culture; ergonomics and workplace design and occupational health and safety.
Credit Points: 6 **Contact Hours:** 3 per week

■ HRP103 INDUSTRIAL RELATIONS POLICIES

Examination of policy formation in industrial relations at national and local level in areas including wage policies, job security, job design, bargaining structure and union matters.
Credit Points: 12 **Contact Hours:** 3 per week

■ HRP104 INDUSTRIAL RELATIONS PRACTICES

Current industrial relations practices and policies; researeh techniques for industrial relations issues, case research, preparation and presentation; institutional framework of industrial relations practices in Australia.
Credit Points: 12 **Contact Hours:** 3 per week

■ HRP105 INDUSTRIAL RELATIONS PROCESSES

Negotiation practices in industrial law; detailed study of law relating to trade unions and employer organisations; current developments in industrial law.
Prerequisite: HRP104
Credit Points: 12 **Contact Hours:** 3 per week

■ HRP106 INDUSTRIAL RELATIONS STRUCTURES

The economic and political context pertinent to Australian industrial relations; development of Australian economy, industry structure, labour markets, wage fixation, current economic strategies and policies.
Credit Points: 12 **Contact Hours:** 4 per week

■ HRP107 INDUSTRIAL RELATIONS THEORY

Major theoretical approaches to resolution and regulation of conflict in work and employment; theories of collective organisation; bipartite and tripartite schema of labour market regulation and workplace process.
Credit Points: 12 **Contact Hours:** 3 per week

■ HRP108 QUALITY SYSTEM MANAGEMENT

Introduction to the role of quality in modern organisations; relation between quality management and strategic management as a total management philosophy; comparative practices in quality: Japan, Europe, North America, and the Pacific Asian Region; implications for Australia; organising for quality: structure, customer focus, technology and leadership, quality planning and quality systems and standards.
Credit Points: 6 **Contact Hours:** 3 per week

■ HRP109 MANAGING COMMUNICATIONS FOR QUALITY

The importance of information and two-way communication for the development and implementation of the quality plan; introduction to market research to gain information on customer requirements and its impact on the management of quality; communication as part of a quality process, involving management, other employees, customers and supplies in the network; consultation and involvement strategies; communication of policy, commitment and objectives.
Credit Points: 6 **Contact Hours:** 3 per week

■ HRX100 AUSTRALIAN DEVELOPMENT

Australia's industrial development; the development of the arbitration system; the growth of the trade union movement; Australia's changing industrial structure; changing employment trends, new technology, the nature of unemployment, social welfare and the future of work.
Credit Points: 12 **Contact Hours:** 3 per week

■ HRX101 INDUSTRIAL RELATIONS & MANAGEMENT

Professionalism in industrial relations; pre-emptive bargaining; enterprise bargaining; alternative strategies; functional specialisations and the division of professional labour.
Credit Points: 12 **Contact Hours:** 3 per week

■ HRX102 INDUSTRIAL RELATIONS INSTITUTIONS

An introductory analysis of the theory and practice of industrial relations in which major emphasis is placed on the role of the parties and the bargaining context in Australia.
Credit Points: 12 **Contact Hours:** 3 per week

■ HRX103 INDUSTRIAL RELATIONS SKILLS I

Introduction to industrial relations research; written and oral skills necessary for industrial relations practioners; research writing and presentation of industrial relations reports.
Credit Points: 12 **Contact Hours:** 3 per week

HRX104 INDUSTRIAL RELATIONS SKILLS 2

Vocational skills associated with industrial relations practice; industrial information sources; collection, collation and utilisation of source material; handling industrial situations; meeting law and procedure.
Prerequisite: HRX103
Credit Points: 12 **Contact Hours:** 3 per week

HRX105 INDUSTRIAL RELATIONS SKILLS 3

Negotiation processes in industrial relations; duties, responsibilities and skills of negotiators; handling grievances at the workplace; award interpretation; local responsibilities.
Prerequisite: HRX104
Credit Points: 12 **Contact Hours:** 3 per week

HRX106 INDUSTRIAL RELATIONS SKILLS 4

Formal advocacy and negotiation; operations within the conciliation and arbitration tribunals; collective bargaining in common law agreements; award creation and variation.
Prerequisite: HRX105
Credit Points: 12 **Contact Hours:** 3 per week

HRX107 SOCIOLOGY OF WORK

Examination of major theories in the sociology of work; the relationship between the world of work and society; detailed examination of occupations; the labour process and alienation; Australian social structure.
Credit Points: 12 **Contact Hours:** 3 per week

HRX108 SPORTS ADMINISTRATION

The roles of elected officials; the roles of professional administrators; the relationships between the two groups; managing meetings and committees; liaison with government departments; managing sponsorship; intra-organisational conflicts and negotiation.
Prerequisite: BSB102
Credit Points: 12 **Contact Hours:** 3 per week

HRX110 WORKPLACE ISSUES

Analysis of policies dealing with current industrial relations issues in the workforce. Australian and overseas initiatives.
Credit Points: 12 **Contact Hours:** 3 per week

HUB002 CONTEMPORARY MORAL PROBLEMS

Introduction to the central questions of applied ethics and moral philosophy through an analysis of a range of contemporary issues, eg. uses of technology, genetic engineering, nuclear energy, overpopulation, environmentalism, war, terrorism, civil disobedience, pacifism, racism, sexism, abortion, euthanasia, suicide and sexuality.
Credit Points: 12 **Contact Hours:** 3 per week

HUB003 PHILOSOPHY & NURSING 1

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; and critical thinking in nursing practice.
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; the relationship between ethics and professional nursing practice.
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 (eg. concept of personhood, the nature of love, power, desire, human rights); consideration of the socio-cultural factors and changes which are generating moral dilemmas in contemporary society; case studies of moral issues and moral decision-making; the ethics of teaching controversial issues and matters such as indoctrination and censorship – all in the context of possibilities of human relationships education within the Queensland education system.
Credit Points: 12 **Contact Hours:** 3 per week

HUB100 APPROACHES TO CULTURAL STUDIES

Critical evaluation of traditional approaches to literary texts; understanding of major terms and concepts of semiotics, structuralism, post-structuralism; application of concepts in analysis of texts; knowledge of significant writings and cultural theorists.
Credit Points: 12 **Contact Hours:** 3 per week

HUB101 AUSTRALIAN LITERARY STUDIES

Critical appreciation of various texts from Australia's literary tradition; impact of social values, political and artistic movements upon literature production and genres; dichotomy of mainstream and marginalised writing in various groups and periods of Australia's cultural traditions.
Prerequisite: HUB100
Credit Points: 12 **Contact Hours:** 3 per week

HUB102 MODERN BRITISH LITERATURE

The novel, poetry and drama from the time of Hardy to the present day; the development of modernism; the influence of T.S. Eliot; changes in the nature of drama with the birth of realism and the conflict created by the anti-novel in any traditional view of a body of literature.
Prerequisite: HUB100
Credit Points: 12 **Contact Hours:** 3 per week

HUB103 NINETEENTH CENTURY ENGLISH LITERATURE

The importance of context to critical appreciation of the literature of any age; the varying kinds of relationships that exist between writers and their society in a time of profound social, economic and political change.
Prerequisite: HUB100
Credit Points: 12 **Contact Hours:** 3 per week

HUB104 AMERICAN LITERATURE

The literature of America in the twentieth century within its cultural context; significant developments in American literature since the 1920s, with reference to major preoccupations and issues; changes and influences in literary style; the impact of socio-political changes on American writing.
Prerequisite: HUB100
Credit Points: 12 **Contact Hours:** 3 per week

HUB105 SHAKESPEARE IN THE ELIZABETHAN WORLD

The literary and intellectual culture of Elizabethan England as a backdrop for the special study of a selection of the dramatic and poetic works of William Shakespeare and, more briefly, the work of some of his contemporaries.
Prerequisite: HUB100
Credit Points: 12 **Contact Hours:** 3 per week

HUB108 CLASSICAL & MEDIEVAL LITERATURE

Great works from ancient Greece with reference to Greek art, architecture, religion and philosophy; the development of Latin literature from Ennius to the Silver Age in its historical context; the authorised version of the Bible; Anglo-Saxon literature, old French literature, Dante, Petrarch, Boccaccio, Chaucer, Malory and the Arthurian tradition.
Prerequisite: HUB100
Credit Points: 12 **Contact Hours:** 3 per week

HUB109 NARRATIVE & SOCIAL CONTEXT

The role and functions of narrative and story-telling as habitual means of making sense of experienced socio-political issues; myth and the construction of social and psychological realities. Textual analysis of set works in terms of social, cultural and political contexts, and in relation to the ways in which medium of expression, genre and intended audience relate to content.
Prerequisite: HUB100
Credit Points: 12 **Contact Hours:** 3 per week

HUB111 APPROACHES TO LITERATURE

Introduction to theories and practice of literary criticism and cultural analysis. The subject applies theoretical approaches (including new criticism; structuralism and post-structuralism; Marxist, psychoanalytic and feminist perspectives) to the study of a representative selection of texts chosen from a variety of genres and media.
Credit Points: 12 **Contact Hours:** 3 per week

HUB200 INTRODUCTION TO CULTURAL GEOGRAPHY

The spatial organisation of world societies, their demographic characteristics, their means of livelihood and interactions with each other; geography viewpoint, cultural diversity; cultural universals; social well-being; perception; diffusion; contemporary affairs.
Co-requisites: HUB201, HUB202
Credit Points: 12 **Contact Hours:** 3 per week

HUB201 PEOPLE & THE NATURAL ENVIRONMENT 1

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.
Co-requisites: HUB200, HUB202
Credit Points: 12 **Contact Hours:** 3 per week

HUB202 INTRODUCTION TO GEOGRAPHY

The nature and purpose of geography in terms of its conceptual structure and enquiry approaches; technologies, methods, skills commonly used by geographers.
Co-requisites: HUB200, HUB201
Credit Points: 12 **Contact Hours:** 3 per week

HUB203 PEOPLE & THE NATURAL ENVIRONMENT 2

Global systems; regional patterns of climate, soils, flora and fauna; human influence on global systems, potential effects and mitigation strategies.
Prerequisite: HUB201
Credit Points: 12 **Contact Hours:** 3 per week

HUB204 AUSTRALIAN GEOGRAPHICAL STUDIES

Consumer versus conserver values; resource development in Australia; distribution and structure of the Australian population; prospects for sustainable agriculture; energy resources, user patterns, future scenarios: industrialisation in Australia, the benefits and costs of technological changes on resource development.
Prerequisite: HUB200
Credit Points: 12 **Contact Hours:** 3 per week

HUB205 LIVING IN CITIES

The cultural basis of human settlement and the factors that contribute to the nature of modern cities (human perception, economic and political processes, the natural environment); the problems caused by overcrowding, urban decay and the unjust distribution of urban services and facilities in Australian, other Western and Third World cities; principles of town planning; field study.
Prerequisite: HUB202
Credit Points: 12 **Contact Hours:** 3 per week

HUB206 ADVANCED GEOGRAPHICAL TECHNIQUES

User-oriented mapping; geographical information systems and the structuring of geographical information; computer-assisted mapping; uses of remote sensing; advanced aerial photography; field skills in geography.
Prerequisite: HUB202
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.
Prerequisites: HUB201, HUB203
Credit Points: 12 **Contact Hours:** 3 per week

HUB208 ASIAN GEOGRAPHICAL STUDIES

Physical and cultural aspects of Asia; transition from traditional societies; the effects of colonialism; the independence movements; alternative approaches to development; traditional and modern agriculture; trends in manufacturing; tourism; urbanisation; cultural conflict and economic power; alternative approaches to development; trade cooperation and dependency.
Prerequisites: HUB200, HUB503
Credit Points: 12 **Contact Hours:** 3 per week

HUB209 RESOURCES PLANNING & DEVELOPMENT

The social, economic and political implications of the distribution, management and consumption of resource; evaluation of the impact of resource development on social and economic well- being and environmental quality; clarification of the concept of a just society in terms of resource development.
Prerequisites: HUB201, HUB200
Credit Points: 12 **Contact Hours:** 3 per week

HUB210 ADVANCED URBAN GEOGRAPHY

Analysis of socio-political and philosophical perspectives of the urban environment; social stratification; residential differentiation; housing supply and demand; spatial organisation and demand in urban areas; social interaction; environmental planning, power and status; demographic and technological change.

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

HUB300 MODERN POLITICAL IDEOLOGIES

Political values and the political spectrum; the problem with models; right wing ideologies: liberalism, social democracy; socialism; left wing ideologies: Marxist socialism, anarchism; emerging ideologies: feminism, environmentalism; residual ideologies: racism, imperialism.

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

HUB301 AUSTRALIAN STUDIES

Developments in nineteenth and twentieth century Australia; the Australian legend; Australian nationalism; race relations; federation; foreign policy; Australia's position in the world; the Australian political system.

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

HUB302 THE EMERGENCE OF CIVILISATION

The rediscovery of the ancient past; the growth of archeology; selected case studies of Egypt, Sumer, early Indian and Chinese civilisations.

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

HUB303 THE CLASSICAL WORLD

Greek society: Greece after the dark age; the emergenee of city states; the spread of Greek peoples across the eastern Mediterranean; the development of Athenian democracy; the Peloponnesian War and the decline of the Greek world; the cultural contribution of the Greek world. Roman society; the beginnings of Rome; the early republican government; the struggle for Italy and the western Mediterranean; the breakdown of the republic and the growth of the principate; Rome as master of the Mediterranean; the spread of Christianity; the decline of the empire.

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

HUB304 MODERN CHINA & JAPAN

Historical developments in China and Japan during the nineteenth and twentieth centuries; use of historical evidence to examine commonly held stereotypes of Chinese and Japanese society and to evaluate a variety of explanations relating to the recent history of the area.

Prerequisites: HUB315, HUB300, HUB301

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

HUB305 MODERN INDIA & SOUTH EAST ASIA

Inquiry-based study of the struggles for independence in India and Vietnam; ways in which historians bring different analytical frameworks to bear on historical questions.

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

HUB306 EUROPEAN STUDIES 1

European history: developments and relevance; sixteenth century Europe: the renaissance, the reformation and Martin Luther; England in the sixteenth and seventeenth centuries; the English Reformation and the English revolution; the French revolution: Napoleon and the Napoleonic legend; nationalism in the nineteenth century: Italian and German unification; the Third Republic of France and the Dreyfus affair; Bismarkian Germany; Europe in 1900.

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

HUB307 EUROPEAN STUDIES 2

Europe before 1912; the origins of World War I; Europe between the wars: the rise of Fascism; Russia and the USSR: the Revolution of 1917 and its consolidation to 1921; World War II: a people's war; the origins of the Cold War; Western Europe: the European Economic Community; Eastern Europe; the USSR; Stalin, Khrushkev, Brezhnev, Gorbachev; Glasnost and Perestroika; Europe in 1992.

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

HUB308 AMERICAN STUDIES

The formative decades; the emergence of the United States and the revolutions of Central and South America; the Monroe Doctrine; expansion across the continent – Canadian and American experiences; the emergence of the United States as a world power; gunboat and dollar diplomacy; American economic imperialism and reactions north and south; the limits to American power.

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

HUB309 WOMEN IN AUSTRALIAN HISTORY

The nature of history as a series of tentative interpretations; the forgotten people of history of which women are one group; how to redress the imbalance and develop women's history; women's history as part of the predominant historical paradigm; women's history as social history; developing women's history.

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

HUB310 HISTORY SEMINAR

The following are examples of topics which could provide the study focus for this subject; philosophies of the social sciences; world systems theory; Pacific Basin studies; Marxism and the social sciences; global studies, development studies; environmental studies; the use of conceptual models in history.

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

HUB311 THE STUDY OF HISTORY

An introduction to some of the key issues inherent in the study of history; the role and importance of history for contemporary society; examination of differing theories of history; the nature of the new history; evaluation of the importance of historical studies in the socialisation process.

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

HUB312 ASIAN STUDIES

Consideration of the nature of traditional Asian societies, the interface between occidental and oriental cultures both historically and in a contemporary context, and the emergence of modern Asian societies. It has been specifically designed for secondary school teachers with limited knowledge of Asia and Asian issues.

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

■ **HUB314 INDONESIA: AUSTRALIA'S NEAR NEIGHBOUR**

Influence of the physical environment on population densities and land use systems; ethnic groups, historical survey from pre-European times to Independence; agricultural systems; religion; mining and manufacturing; politics since independence; problems for the future; the nature and structure of the Indonesian language.
Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB315 INTRODUCTION TO HISTORY**

The nature of history as a discipline; the work of historians; consideration of a specific historical work, using it as a focus for examining more general problems of historical writing and perceptions of history.
Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB317 MODERN EUROPEAN STUDIES**

Major aspects of physical geography of Europe; population factors; political institutions and movements; economic activities and institutions; relationships with the rest of the world; current ecological issues; current social issues; political interactions and movements; ecological issues; social issues.
Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB318 EUROPEAN CULTURAL HISTORY**

The development of European civilisation from its origins in Greece and Rome; the spread and influence of Christianity; the fall of Rome and the Barbarian invasions; the Middle Ages and the Renaissance; cultural and artistic achievements which find expression in literature, art, music and architecture; the importance of Renaissance Italy on the whole of European culture; the emergence of the great European powers and the development of national thought in the seventeenth and eighteenth centuries; Romantic period and the significance of the French Revolution; the industrial age, the growth of liberalism and literary and artistic achievements until World War I; developments in the modern age.
Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB319 ASIAN CULTURAL STUDIES**

Traditional Asian values and beliefs; impact of these values and beliefs on social structures, decision making, technological development; western colonialism, imperialism and neo-imperialism and their impact on Asian cultures; the emergence of contemporary Asian cultures.
Credit Points: 12 **Contact Hours:** 4 per week

■ **HUB400 FRENCH LANGUAGE 1**

Development of the four language skills: listening, speaking, reading and writing; acquisition of knowledge and skills to perform various language functions in a variety of settings.
Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB401 FRENCH LANGUAGE 2**

Extension of HUB400.
Prerequisite: HUB400
Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB402 FRENCH LANGUAGE & LITERATURE 1**

Development of the four language skills; literary texts where the prevailing ideas are seen to be revolutionary in some way, whether individually, socially, or philosophically (Voltaire, Rousseau, Sartre, Rimbaud, Robbe-Grillet) where language and genre are at issue.
Prerequisite: HUB401
Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB403 FRENCH LANGUAGE & LITERATURE 2**

Continuing development of the four language skills; studies in conflict in French literature.
Prerequisite: HUB402
Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB404 FRENCH LANGUAGE & LITERATURE 3**

Continuing development of the four language skills; studies in relationships between men and women in French literature.
Prerequisite: HUB403
Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB405 FRENCH LANGUAGE & LITERATURE 4**

Continuing development of the four language skills; study of a variety of French texts where there is the possibility of analysing different aspects of the concept of hero or heroine.
Prerequisite: HUB404
Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB406 ITALIAN LANGUAGE 1**

Functional development of the four language skills; systematic study of Italian grammar to consolidate language structures.
Credit Points: 12 **Contact Hours:** 4 per week

■ **HUB407 ITALIAN LANGUAGE 2**

Extension of HUB406.
Prerequisite: HUB406
Credit Points: 12 **Contact Hours:** 4 per week

■ **HUB408 ITALIAN LANGUAGE & LITERATURE 1**

Italian grammar; writing, listening and speaking skills; reading of prose and poetry; reading and performance of a play.
Prerequisite: HUB407
Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB409 ITALIAN LANGUAGE & LITERATURE 2**

Difficult aspects of Italian grammar; systematic study of the literature of the Middle Ages.
Prerequisite: HUB408
Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB410 ITALIAN LANGUAGE & LITERATURE 3**

Further development of language skills; literature from the Renaissance to the nineteenth century; development of the Italian Language; dialects; Italian spoken by migrants in Australia.
Prerequisite: HUB409
Credit Points: 12 **Contact Hours:** 3 per week

■ **HUB411 ITALIAN LANGUAGE & LITERATURE 4**

Further development of language skills; literature from the Renaissance to the nineteenth century; development of the Italian language; dialects; Italian spoken by migrants in Australia.
Prerequisite: HUB410
Credit Points: 12 **Contact Hours:** 3 per week

HUB412 GERMAN LANGUAGE 1

Development of the four language skills: listening, speaking, reading and writing; acquisition of knowledge and skills to perform various language functions in a variety of settings.

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

HUB413 GERMAN LANGUAGE 2

Extension of HUB412.

Prerequisite: HUB412

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

HUB414 GERMAN LANGUAGE & LITERATURE 1

Development of the four writing skills and introduction to some easy modern German literature.

Prerequisite: HUB413

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

HUB415 GERMAN LANGUAGE & LITERATURE 2

In addition to the development of the four language skills, it concentrates on the study of the modern novel.

Prerequisite: HUB414

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

HUB416 GERMAN LANGUAGE & LITERATURE 3

Further development of German language and literature, especially poetry and drama. It introduces students to German radio, cinema and television.

Prerequisite: HUB415

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

HUB417 GERMAN LANGUAGE & LITERATURE 4

Continuing development of language skills; German literature in the past and the history of the German language.

Prerequisite: HUB416

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

HUB418 LOTE 1

Students develop the ability to communicate in Indonesian, Japanese and German in a variety of situations and gain a better understanding of the sociocultural aspects of the target culture.

Credit Points: 8 **Contact Hours:** 3 per week

HUB419 LOTE 2

This subject 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.

Prerequisite: HUB418

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

HUB500 LOCAL COMMUNITY

The importance of the local community in relation to broader issues of Australian and global citizenship; the sources of data available for local community studies and methods of collating, analysing, synthesising and evaluating data on local communities; the nature of local communities; the problems and issues facing them; the inter-relationship between the local community and broader community groups.

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

HUB501 INTRODUCTION TO THE SOCIAL SCIENCES

Principle theories and procedures of the social sciences; problematic nature of evidence and data used by social scientists; the value base of social science knowledge and inquiry.

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

HUB502 ABORIGINAL & TORRES STRAIT ISLANDER CULTURE STUDIES

Concepts of culture; Aboriginal and Torres Strait Islander culture: laws, religions, philosophy, social structure, material culture, artistic expression; alternative social stratification, behaviours and values; ritual and ceremonial life, their aspects and importance; contemporary socio-political issues, land rights, health, education, employment and expression.

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

HUB503 AUSTRALIA & THIRD WORLD ISSUES

The Third World and Australia; the nature of world poverty; myths surrounding overpopulation; the causes of world hunger; life in shanty towns; the relationship between the arms race and underdevelopment; approaches to development based on self-reliance and global interdependence.

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

HUB504 CONTEMPORARY GLOBAL ISSUES

The world economic system; nation states and self-determination; the causes of conflict and the maintenance of peace; international human rights; the ecological crisis; sustainable development; the role of the United Nations and non-government groups.

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

HUB505 SOCIAL SCIENCE SEMINAR

The following are examples of topics which could provide the study focus for this subject: philosophies of the social sciences; world systems theory; Pacific Basin studies; Marxism and the social sciences; global studies, development studies; environmental studies; the use of conceptual models in the social sciences.

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

HUB506 INTRODUCTION TO AUSTRALIAN POLITICS

Concepts and values which serve as an analytical and explanatory context for studies of Australian society; the major institutions of society, including government at all levels, economic institutions, organisations of employers and workers, extra-parliamentary political groups.

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

HUB507 CONSUMERISM

The nature of the consumer society and its underlying values; consumer sovereignty: reality or myth?; the structures and institutions promoting, maintaining and sustaining the consumer society; the implications of consumer society: a consideration of the benefits and costs; visions of a new consumer society; what needs to be done?; alternative visions to the consumer society.

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

HUB508 PACIFIC ISLAND HISTORY (SINCE 1945)

National identity and nationhood; western and indigenous attempts to create a regional identity through political, cultural and economic relationships; continuing presence of neo-colonial influences including language, tourism, aid. A study of contemporary

events of importance to Pacific Island people, eg. militarism, cultural transmission via TV, land rights, independence, sovereignty. Students undertake an independent study of an area covered in the program.
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.
Prerequisite: Successful completion of subjects totalling not less than 120 hours of weekly contact time
Credit Points: 24 **Contact Hours:** 3 per week

IFN001 ADVANCED INFORMATION RETRIEVAL SKILLS
This subject provides postgraduate research students with the skills to implement a thorough literature search in their research area and to set up a personal system for managing the references collected. The seven modules which form this subject include: using the QUT libraries; indexing and abstracting services; electronic information retrieval; developing a current awareness strategy; thesis writing; personal file management; evaluating information.
Credit Points: 4 **Contact Hours:** 1 per week

IFP222 PROJECT
Students undertake a project in the area of Quality with the aim of developing a student's capacity for managing his/her own work and for persistence within a prescribed area. The project will normally involve presentation of a seminar in addition to the preparation of a full report. The topic selected will have regard to available expertise and the selected field of special interest to the candidate. In particular, it is expected that project work will be conducted across the wide variety of applications in areas serviced by the course. Most projects will be work-related and will have associate supervision from commercial/industrial sources. It is envisaged that, where appropriate, projects may be jointly supervised by staff of the Schools involved in the course.
Credit Points: 8 **Contact Hours:** 2 per week

ISB014 INTRODUCTION TO INFORMATION SYSTEMS
Basic information system concepts; the utilisation of information; microcomputer packages and equipment; office automation; introduction to SQL.
Credit Points: 12 **Contact Hours:** 3 per week

ISB019 SYSTEMS ANALYSIS & DESIGN
Information systems and their development; the systems development life cycle; project management; structured analysis, design tools and techniques; security and controls; systems documentation; system conversion; testing implementation planning and user training.
Prerequisite: ISB014
Credit Points: 12 **Contact Hours:** 3 per week

ISB030 SYSTEMS DEVELOPMENT PROJECT
The design, development and implementation of a computer-based system; demonstration of the working system.
Prerequisites: ISB019 and subjects as required by supervisor.
Credit Points: 12 **Contact Hours:** 3 per week

ISB038 TRANSACTION BASED SYSTEMS
Transaction processing systems (TPS) requirements; transaction rates, atomic events, multiple access; disk performance, performance tuning; distributed TPS, planning for TPS, capacity planning for TPS.
Prerequisite: ISB089
Credit Points: 12 **Contact Hours:** 3 per week

ISB089 COMMERCIAL SYSTEMS DEVELOPMENT
Production of reliable software; standards and documentation; programming for large systems; managing software development; programming using advanced COBOL.
Prerequisite: ISB095 or ISB014
Credit Points: 12 **Contact Hours:** 4 per week

ISB090 DATABASE SYSTEMS 1
Database system architecture; storage structures and database models; relational database systems; relational algebra and calculus; further normalisation theory; advanced use of database languages including SQL.
Prerequisite: ISB014
Credit Points: 12 **Contact Hours:** 4 per week

ISB091 INDUSTRY PROJECT
Individual work related to an application of computers in business or other approved area.
Prerequisite: ISB085 or ISB019 plus subjects as required.
Credit Points: 12 **Contact Hours:** 4 per week

ISB093 SYSTEMS PLANNING
Information system classifications; corporate modelling and data base developments; management of information system development; costing and development strategies; information systems trends.
Prerequisites: (ISB090 or CSB012) or (ISB019 or ISB085)
Credit Points: 12 **Contact Hours:** 4 per week

ISB095 COMMERCIAL APPLICATIONS DEVELOPMENT
Development of algorithms; program design; programming style; structured programming concepts; file processing; report generation; practical programming using COBOL.
Prerequisite: CSB011
Credit Points: 12 **Contact Hours:** 4 per week

ISB097 INFORMATION ANALYSIS
Introduction to database systems; database concepts; conceptual data modelling; normalisation; relational database design and implementation; information analysis; conceptual schema design; data definition languages.
Prerequisite: ISB014 or equivalent
Credit Points: 12 **Contact Hours:** 4 per week

ISB098 DATABASE SYSTEMS 2
Advanced database concepts; performance and reliability criteria; recovery, integrity, concurrency and security; optimisation techniques; distributed database systems.
Prerequisite: ISB090
Credit Points: 12 **Contact Hours:** 4 per week

ISB101 APPLICATION SYSTEMS
This subject examines the way business operates and the nature of business application systems. It also examines the features of some non-business applications. On completion of the subject, students will be able to describe the generalised applications needed to support business; be aware of the need for custom-

designed systems; and be aware of career prospects in the information technology industry in Australia.
Credit Points: 9 **Contact Hours:** 3 per week

■ ISB102 REPRESENTATION OF INFORMATION

This subject will provide students with the ability to develop an abstract model of a real situation, being the first step in the process of creating a computer-based information system. The subject therefore forms a basis for the subsequent development of the concepts associated with the design and implementation of information systems.
Credit Points: 9 **Contact Hours:** 3 per week

■ ISB113 PRINCIPLES OF INFORMATION MANAGEMENT

An introduction to the core elements of information management emphasising information as an essential organisational resource required by management to meet organisational goals and objectives. The nature and creation of information, storage media, organisation for storage, retrieval techniques, transfer, effects of internal and external environments, security and obsolescence.
Credit Points: 9 **Contact Hours:** 3 per week

■ ISB180 COMPUTER APPLICATIONS

Application of technologies in a teaching context; the use of writing and publishing software; graphics design software; numerical software tools; personal and project management tools; communications technologies and computer peripherals used in the production of computer-generated materials.
Credit Points: 12 **Contact Hours:** 3 per week

■ ISB183 INTRODUCTION TO COMPUTERS IN PLANNING

The use of computers in planning, including benefits and problems; computing facilities available at QUT, particularly PCs. Overview of computers; problems and advantages of computer use; 'hands on' experience in using QUT's computer facilities; gaining access, file structures, information storage and retrieval, editing and related utility functions; flowcharting and programming logic. Simple programming exercises. Spreadsheets and databases. Geographical Information Systems. Word processing on microcomputers.
Credit Points: 4 **Contact Hours:** 2 per week

■ ISB201 INFORMATION SYSTEMS ANALYSIS & DESIGN 1

This subject provides a grounding in the methodology and techniques of systems analysis and design.
Prerequisite: ISB102
Credit Points: 9 **Contact Hours:** 3 per week

■ ISB202 DATABASE & PROCEDURAL LANGUAGES

The fundamentals and syntax of a procedural computer programming language (eg. COBOL) and its use in the implementation of information systems (in particular database systems). Apart from developing techniques in commercial programming, the subject provides an appreciation of the advantages and disadvantages of a database approach.
Prerequisites: CSB100, ISB102
Credit Points: 9 **Contact Hours:** 3 per week

■ ISB203 ADVANCED DATABASE

Relational and network database architectures and the facilities provided by a database management system. The issues in the database area which impinge on on-line systems design will be discussed and students will be introduced to the relationship between database management systems and 4GL software.
Prerequisite: ISB102 or ISB182
Credit Points: 9 **Contact Hours:** 3 per week

■ ISB204 INFORMATION MANAGERS AND THE LAW

The legal environment of computing is examined with reference to protection, intellectual property, copyright legislation and patent processes, computer contracts and crime. Implications of computer data use with respect to evidence, privacy, freedom of information and flow of data are considered. Use of computers in legal practice and use of legal databases are studied with particular reference to INFO-One.
Credit Points: 9 **Contact Hours:** 3 per week

■ ISB210 INFORMATION SYSTEMS ANALYSIS & DESIGN 2

This subject teaches a complete method for developing an information system, from initial analysis of the problem through to a working computer system. Emphasis is given to the practical application of the techniques, using a wide range of real life problems.
Prerequisite: ISB201
Credit Points: 9 **Contact Hours:** 3 per week

■ ISB214 THE INFORMATION RESOURCE

Methodologies for analysing information resources within an organisation with particular reference to information mapping techniques; comparisons between institutions that concentrate on one information function and institutions that utilise a range of internal and external functions; the effect of convergent technologies on such use.
Credit Points: 9 **Contact Hours:** 3 per week

■ ISB215 EXTERNAL SOURCES OF INFORMATION

This subject encompasses the scanning of the environment using various information sources, technologies, avenues and methodologies. It will also provide practical skills including on-line searching techniques. It will cover the definition of external information sources (personal and recorded); types of information provided by government sources, industrial sources, academic sources and business sources; the publishing industries; storage and retrieval media; computer conferencing.
Credit Points: 9 **Contact Hours:** 3 per week

■ ISB216 POLITICAL & SOCIAL ASPECTS OF INFORMATION TECHNOLOGY

The major political and legal aspects of information technology. Government policies relevant to the information industry will be examined and comparisons drawn between policies adopted by different countries. The social consequences of technological convergence with particular emphasis on the changing nature of work and the evolution of the information professions will be discussed.
Credit Points: 9 **Contact Hours:** 3 per week

■ ISB219 ADVANCED COBOL

This subject provides students with the opportunity of gaining greater proficiency in writing complex commercial programs in the COBOL language. A major programming project will be implemented to facilitate the above.
Prerequisite: ISB202 or ISB283
Credit Points: 9 **Contact Hours:** 3 per week

ISB281 INFORMATION SYSTEMS ANALYSIS & DESIGN 1

The methodology and techniques of systems analysis and design; and aims to develop competence in techniques and application of methodologies of information systems development.
Prerequisite: ISB182
Credit Points: 12 **Contact Hours:** 4 per week

ISB283 DATABASE & PROCEDURAL LANGUAGES

Introduction to the fundamentals and syntax of a procedural computer programming language (eg. COBOL), examining its use in the implementation of information systems (and in particular database systems). Apart from developing techniques in commercial programming, the subject provides an appreciation of the advantages and disadvantages of a database approach.
Prerequisites: CSB181, ISB182
Credit Points: 12 **Contact Hours:** 4 per week

ISB290 INFORMATION SYSTEMS ANALYSIS & DESIGN 2

Techniques of analysis and design to further develop competence in methodologies, skills and techniques used by systems analysts. It will teach a complete method for developing an information system, from initial analysis of the problem through to a working computer system. Emphasis will be given to the practical application of the techniques, using a wide range of real life problems.
Prerequisite: ISB281 or equivalent
Credit Points: 12 **Contact Hours:** 4 per week

ISB300 PROJECT WORK

Students, either individually or in small groups, undertake a substantial 12 month project relevant to the needs of industry and designed to give insight into industrial requirements. Each student/group is supervised by a member of staff. In addition, there is a teaching contribution of one hour per week throughout the first semester from the School of Communication, designed to develop the student's communication skills.
Prerequisite: Successful completion of at least the equivalent of two-thirds of Bachelor of Business (Computing) and CMB104.
Credit Points: 12 per semester

ISB301 ADVANCED INFORMATION SYSTEMS

This subject introduces students to the concept and practice of Decision Support Systems (DSS). It covers foundations architecture and developing DSS; the DSS environment, applications of DSS and the role of DSS in an organisation; end-users and DSS; human factors in DSS; DSS and management information systems; intelligent DSS.
Prerequisite: ISB201 or ISB281
Credit Points: 9 **Contact Hours:** 3 per week

ISB302 DATABASE MANAGEMENT

The subject focuses on the practical issues associated with the implementation and management of the database designs developed in previous subjects. It specifically addresses issues such as relational design and the performance and tuning of databases, as well as control issues such as integrity. It is intended to provide students with an appreciation of some of the more significant commercial implementations of database architectures.
Prerequisite: ISB202 or ISB283
Credit Points: 9 **Contact Hours:** 3 per week

ISB303 OFFICE INFORMATION SYSTEMS

The development and implementation of information systems in the office context. It includes an assessment of the computer hardware, software and telecommunications products available to support the automated office. The subject is intended to extend students' competence in the design and management of data communications networks and to examine techniques and systems contributing to automation of the modern office.
Prerequisite: ITB501
Credit Points: 9 **Contact Hours:** 3 per week

ISB304 PROJECT WORK

Students, either individually or in small groups, undertake a substantial six-month project relevant to the needs of industry and designed to give insight into industrial requirements. Each student, or group of students, undertakes a different project and is supervised by a member of staff who provides guidance throughout the project.
Prerequisite: Successful completion of the first two years of Bachelor of Business – Computing/Bachelor of Laws joint degree course.
Credit Points: 12

ISB305 PROJECT

Students, either individually or in small groups, undertake a substantial six-month project relevant to the needs of industry and designed to give insight into industrial requirements. Each student, or group or students, undertakes a different project and is supervised generally by a member of staff who provides guidance throughout the duration of the project.
Prerequisite: Successful completion of at least the equivalent of two-thirds of the normal course program and CMB104.
Credit Points: 12

ISB313 EXPERT INFORMATION SYSTEMS

The role of expert systems in the commercial area and their impact on business information systems; provides an understanding of how expert systems could be used in the development of advanced business information systems; and gives some practical experience in developing and implementing information systems containing such techniques; includes discussion on social implications of expert systems.
Prerequisite: ISB202 and ISB210 or ISB283 and ISB290
Credit Points: 9 **Contact Hours:** 3 per week

ISB314 INFORMATION SYSTEMS MANAGEMENT

This subject is designed to develop a knowledge of the functions and practices of management in a computer installation and to give competence in the evaluation and acquisition of a computer system. It will cover the data processing management process; criteria and techniques for selecting computer hardware, software and services; the RFP, project and operations management; site selection, evaluation of computing contracts and professional ethics.
Prerequisite: Completion of two-thirds of the relevant Bachelor of Business course.
Credit Points: 9 **Contact Hours:** 3 per week

ISB316 INFORMATION SUPPORT SYSTEMS

Methods of describing information for the computer database; introduction to principles of content analysis, vocabulary control and thesaurus maintenance of indexing systems; planning and

implementation of such systems together with database systems and software upgrades by an information centre, along with the establishment of such a centre and its interactions within an organisation.
Credit Points: 9 **Contact Hours:** 3 per week

■ ISB318 STRATEGIC INFORMATION MANAGEMENT

This subject integrates all learning occurring throughout the Information Management degree in the context of the working environment. The importance of strategic planning by organisations and the contribution of the information manager to this process is stressed. The subject covers methods of intelligence analysis and environmental scanning in support of strategic planning. The value of information to the strategic positions being adopted by the organisations is also covered.
Prerequisite: ISB214
Credit Points: 9 **Contact Hours:** 3 per week

■ ISB350 MINOR STUDIES

Students will undertake theoretical and/or practical work under supervision. Topics will be related to other coursework.
Credit Points: 3 **Contact Hours:** 1 per week

■ ISB382 MICROCOMPUTER APPLICATIONS

This subject aims to provide a basic understanding of commercial microcomputer systems as they apply to science. It includes an introduction to three major microcomputer applications; the design and implementation of spreadsheet models and creation of reusable templates; the use of a database management system (DBMS) including design of data files, creation of data views and reports; an introduction to problem definition, solution design and modular programming in connection with the DBMS; understanding the basic capabilities of word processing packages and their applications.
Credit Points: 8 **Contact Hours:** 3 per week

■ ISB385 MICROCOMPUTER SOFTWARE APPLICATIONS

This subject is designed to provide a basic understanding of commercial microcomputer systems as they relate to applied science. It includes an introduction to three major microcomputer applications; the design and implementation of spreadsheet models and creation of reusable templates; the use of a database management system (DBMS) including design of data files, creation of data views and reports; an introduction to problem definition, solution design and modular programming in conjunction with the DBMS; and an understanding of the basic capabilities of word processing packages and their applications.
Credit Points: 4 **Contact Hours:** 2 per week

■ ISB393 COMPUTER BASED INFORMATION SYSTEMS

The subject is designed to introduce engineering students to commercial computer applications. Some time will be spent on introducing systems concepts, file management and database systems. As practical work, the combination of database/spreadsheet package VP-Planner has been selected.
Credit Points: 4 **Contact Hours:** 2 per week

■ ISB493 BUSINESS COMPUTER PROGRAMMING

This subject introduces COBOL as a business programming language and develops competence in modern commercial programming techniques. It examines programming principles, structured design, fundamentals of COBOL, commercial data processing systems, algorithms for business applications, data structures and file processing. It includes practical projects in COBOL on HP3000 or VAX. (**Note:** This subject is not compatible with CSB306 or ISB283; credit may not be retained for both.)
Prerequisites: CSB155, ISB892
Credit Points: 12 **Contact Hours:** 3 per week

■ ISB863 DATABASE THEORY & TECHNIQUES

Logical and physical models of information systems; the characteristics of these models; use of a structured query language to query existing curriculum databases and construct new ones; the sociological implications of the utilisation of public and private databases.
Credit Points: 12 **Contact Hours:** 3 per week

■ ISB865 INFORMATION SYSTEM MODELLING

Modelling of information systems, in particular relational systems; fact oriented approaches; conceptual schema design.
Pre/Co-requisite: ISB863
Credit Points: 12 **Contact Hours:** 3 per week

■ ISB892 BUSINESS COMPUTING

This subject provides business students with a practical understanding of computers as used in various business environments and an introduction to the theory of hardware, software, types of processing and data storage methods. The emphasis of this subject is to give business students a thorough understanding of the role of computing in business, the efficient design and implementation of microcomputer software solutions (wordprocessing, spreadsheets and databases) to specific business problems, and an understanding of the implications of computers for business in terms of security, privacy, legal issues and current developments.
Credit Points: 12 **Contact Hours:** 4 per week

■ ISB998 SPECIAL TOPIC – BUSINESS COMPUTING

■ ISB999 SPECIAL TOPIC – BUSINESS COMPUTING

These subjects are designed to allow for the significant development of, or emphasis in, business computing not dealt with in other course subjects. Selected topics and study areas will be offered as required and when the necessary expertise is available. See School announcements for full details of special topics being offered.
Prerequisite: See School announcements.
Credit Points: 9 **Contact Hours:** 3 per week

■ ISN100 INFORMATION SYSTEMS 1

Advances in information system development approaches and techniques. It examines the theoretical basis underlying current approaches to decision support. A special focus is on the impact on information systems development of increased user involvement.
Prerequisite: ISB201 (or equivalent)
Credit Points: 12 **Contact Hours:** 3 per week

■ ISN110 FORMAL SYSTEMS SPECIFICATION

The description of information systems by means of formal languages; the concepts of formal specification, compared to informal specification languages such as structured English. As well as being taught how to formally specify a system, students will be shown how to prove properties of that system, how to

develop an executable implementation of the system and how to prove the equivalence of the two.
Prerequisites: ISB201, ISB302 (or equivalent)
Credit Points: 12 **Contact Hours:** 3 per week

■ ISN120 DATABASE SYSTEMS

Examines aspects of database performance, data distribution and the special problems of storing unformatted data. Database performance is discussed in terms of query optimisation, whereby access statements, such as those written in SQL, are analysed so that they are executed efficiently. The advantages and disadvantages of distributed databases are presented, covering topics such as whether data should be replicated over a number of sites. Also deals with the special requirements of databases which contain unformatted data, such as text, voice and image data.
Prerequisite: ISB302
Credit Points: 12 **Contact Hours:** 3 per week

■ ISN130 OBJECT-ORIENTED SYSTEMS

Object-oriented systems as an alternative to traditional procedurally based systems; looks at their benefits and weaknesses, including key concepts of data abstraction and encapsulation and the techniques of inheritance, polymorphism and genericity. Students learn to identify and design object classes. Builds competence in selection of strategies appropriate to improved systems design leading to lower long-term maintenance costs.
Prerequisite: ISB210
Credit Points: 12 **Contact Hours:**3 per week

■ ISN160 KNOWLEDGE-BASED SYSTEMS

This subject assumes a background in conventional systems concepts, programming and database, and an exposure to fundamental expert systems concepts. It 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 bases; and (d) methodological: questions associated with the definition, design and control of knowledge-based systems.
Prerequisites: ISN110, ISB313 (or equivalent).
Credit Points: 12 **Contact Hours:** 3 per week

■ ISN170 SPECIAL STUDIES

Students are offered the opportunity to study specific topics which are not dealt with elsewhere in the course and which are seen at the time of offering to be significant to business information systems. The subject takes account of the very dynamic nature of the information systems field in allowing treatment of newly emerged topic areas. It also permits utilisation of new specialist knowledge and skills among the Information Systems staff at the time.
Prerequisite: See School announcements.
Credit Points: 12 **Contact Hours:** 3 per week

■ ISN180 HUMAN COMPUTER INTERFACE

Addresses the most significant issues and activities of the Human Computer Interface (HCI) 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; examines the development of expert systems and how they change the nature of interaction between person and machine and reviews features of interactions with systems, eg. keyboards through to advanced input modes. On completion of this subject, students should be able to apply principles from the current research in different aspects of HCI interactions and will be aware of future developments possible in this emerging field.
Prerequisite: ISP101
Credit Points: 12 **Contact Hours:** 3 per week

■ ISN190 COMPARATIVE STUDY OF INFORMATION AGENCIES

Philosophies and modes of information provision which apply in different cultures and countries; comparative methods and studies and an investigation of sources relating to information agencies: including both libraries and computer-based information agencies worldwide. Students review and analyse examples of existing studies, services offered by different types of agencies and their community impact, national and international standards of services, the structure of the information professions, professional associations, literature, ethics and legal responsibilities in relation to national information policies and emerging trends in information provision.
Credit Points: 12 **Contact Hours:** 3 per week

■ ISN200 MAJOR ISSUES IN INFORMATION TECHNOLOGY

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

■ ISN201 RESEARCH METHODOLOGY

Topics of research by agreement between the student and a faculty staff member acting as a project supervisor. Students must attend lectures/seminars of approximately one hour every two weeks (on average). They will also engage in literature search and generally other design aspects of their research project.
Credit Points: 12

■ ISN211 HONOURS PROJECT

This subject is a continuation and completion of the research project initiated for ISN201.
Credit Points: 12

■ ISN220 BUSINESS COMPETITOR INTELLIGENCE

The use of competitor intelligence to enhance effectiveness of business strategies and the various methodologies and analytical techniques for obtaining and using competitor intelligence in support of strategic planning; competitor intelligence and strategic planning; the inter-relationship between intelligence and planning in corporate decision making; the organisation framework; establishing an intelligence collection network; analytical techniques; applications in different strategic environments; and sources and types of competitor intelligence.
Prerequisite: ISB215
Credit Points: 12 **Contact Hours:** 3 per week

■ ISN240 CLASSIFICATION

The theory and practice of the classification of knowledge and its role in the advancement of knowledge; selected schemes and their applications, research into automated classification and creation of schemes for special situations will be considered.
Prerequisite: ISP432
Credit Points: 12 **Contact Hours:** 3 per week

ISN250 THE INFORMATION INDUSTRIES

The nature of the information industries and information policies; the social and legal issues involved in the expansion of these industries; the information industries in the information economy, public policy, Queensland as an information economy; information industry development abroad, information law, intellectual property, privacy/freedom of information computer crime transborder data flow/sovereignty issues, social justice and equity issues in the information industry and education for the information society.

Prerequisite: ISB216

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

ISN260 EVALUATION OF INFORMATION SERVICES & ORGANISATIONS

Techniques applicable to the evaluation of libraries and other information centres; including the statistics collected, their usefulness and the means used to collect them as well as non-statistical methods and their value. Previous research will be studied to determine applicable methods and isolate trends, especially those which may have implications for the future.

Prerequisite: ISN201

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

ISN270 SOCIAL IMPACTS OF INFORMATION TECHNOLOGY

The significant issues in the realm of speculative information systems and technologies; scenarios of information rich/poor interactions within and without organisational environments are examined. Emerging issues in information technology and the implications for information systems and organisational structures are defined and predicted. A compact synthesis for an organisational system, incorporating environmental and societal integration is considered.

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

ISN280 ORGANISATIONS, SYSTEMS & INFORMATION

The structure of organisations, systems and information; theoretical aspects of environmental and managerial influences are explored and common linkages identified. Socio-technical areas and system failures are defined. Appropriate strategies to deal with system failures are formulated and presented. The role of information in organisations is illustrated and the symbiotic relationship established. This enables interface constraints to be identified and alternative solutions to be proposed.

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

ISN300 INFORMATION SYSTEMS 2

This subject provides an advanced treatment of contemporary issues of information system development. It deals particularly with the issues of development of corporate information systems.

Prerequisite: ISN100

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

ISN401 MAJOR PROJECT

Students may undertake a major project as an alternative to minor projects to pursue in depth a topic of interest in keeping with the course objectives. Project topics are to be determined after discussion between the student and a Faculty staff member acting as supervisor.

Prerequisite: Completion of at least 50 per cent of the Master of Information Technology.

Credit Points: 48

ISN500 DISSERTATION

Comprises the undertaking and writing up of a significant piece of research work. The research will examine some aspect of concepts and principles dealt with in the course work components of the program. The research topic will be agreed on following discussions between the student and a Faculty staff member who will act as supervisor. Each student will present a seminar on his or her dissertation topic.

Prerequisite: Completion of at least 50 per cent of the Master of Information Technology.

Credit Points: 96

ISP100 THE COMPUTER SYSTEM

An overview of the computer as a tool to be applied to a variety of problems concentrating on applications in commerce; to develop the perception for the process necessary in systems development: software engineering; to develop skills in program development and a basic competence in algorithm development and implementation using PASCAL. It will cover computer hardware and software; an introduction to software engineering; computational linguistics; algorithm development and implementation in PASCAL.

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

ISP101 DATA DESIGN & PROCESSING

This subject is designed to introduce the theory of data modelling and the techniques associated with development of database solutions for a variety of information problems and in conjunction with the above, to familiarise students with modern post-procedural approaches to database retrieval and manipulation.

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

ISP113 PRINCIPLES OF INFORMATION MANAGEMENT

An introduction to the core elements of information management emphasising information as an essential organisational resource required by management to meet organisational goals and objectives. The nature and creation of information, storage media, organisation for storage, retrieval techniques, transfer, effects of internal and external environments, security and obsolescence.

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

ISP200 SYSTEMS ANALYSIS & DESIGN

This subject is designed to give students an understanding of methodologies for undertaking the development of a computer-based business system; to develop competence in the use of a number of techniques of systems analysis and design; to develop understanding of design considerations related to important business application areas; and to extend the understanding of the application of data modelling.

Prerequisite: ISP101

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

ISP301 ADVANCED DATABASE

On completion of this subject, students should be able to accomplish the following: discuss the functions of a DBMS; describe the relational and network approaches to database construction; describe one DBMS in detail; design a database to support the outputs required of some information system; distinguish between databases and knowledge bases, and

describe the features expected of a 4GL and how they facilitate the use of prototyping.
Prerequisite: ISP101 or ISB182
Prerequisite/Co-requisite: ISP400 (for students in the Graduate Diploma Commercial Computing).
Credit Points: 12 **Contact Hours:** 3 per week

■ ISP303 PROGRAMMING

This subject is designed to develop: advanced algorithms and implement these algorithms; structured program design techniques for commercial applications; practical aspects of program testing, debugging and style; and competence in the 'C' programming language. The subject will cover structured program design (top-down development); advanced data structures and algorithm development; and sound program development, testing and debugging using PASCAL and C. It includes practical work on VAX, PCs or HP9000.
Prerequisites: ISP100 and ISP101
Credit Points: 12 **Contact Hours:** 3 per week

■ ISP313 EXPERT INFORMATION SYSTEMS

The role of expert systems in the commercial area and their impact on business information systems. It provides an understanding of how expert systems could be used in the development of advanced business information systems and gives some practical experience in developing and implementing information systems containing such techniques. It includes discussion on the social implications of expert systems.
Prerequisites: ISB283, ISB290 or ISP200
Credit Points: 12 **Contact Hours:** 3 per week

■ ISP314 INFORMATION SYSTEMS MANAGEMENT

This subject is designed to develop a knowledge of the functions and practices of management in a computer installation and competence in the evaluation and acquisition of a computer system. It covers the data processing management process; criteria and techniques for selecting computer hardware, software and services; the RFP, project and operations management; site selection, evaluation of computing contracts and professional ethics.
Prerequisite: Completion of one-half of the Graduate Diploma in Commercial Computing.
Credit Points: 12 **Contact Hours:** 3 per week

■ ISP380 QUALITY INFORMATION SYSTEMS

Methodologies and techniques for achieving a high level of quality in business information systems, relating these to broader principles of quality control and quality assurance. Areas covered include: types of information systems; information as a resource; past and current approaches to information systems; decision making based on information systems; analysis and design; prototype concepts; information system modelling.
Credit Points: 6 **Contact Hours:** 3 per week

■ ISP381 ADVANCED INFORMATION SYSTEMS

The concept and application of Decision Support Systems (DSS), to study the development and architecture of DSS; and to introduce students to the role and relationship of the user and the organisation to DSS. It covers foundations architecture and developing DSS; the DSS environment, applications and the role in an organisation; end-users and DSS; human factors; DSS and Management Information Systems (MIS); intelligent DSS.
Prerequisite: ISB281
Credit Points: 12 **Contact Hours:** 3 per week

■ ISP383 OFFICE INFORMATION SYSTEMS

The development and implementation of information systems in the office context. It includes an assessment of the computer hardware, software and telecommunications products available to support the automated office. The subject is intended to extend students' competence in the design and management of data communications networks and to examine techniques and systems contributing to automation of the modern office.
Prerequisite: ITB508 or ITP501 or equivalent
Credit Points: 12 **Contact Hours:** 3 per week

■ ISP400 ADVANCED PROGRAMMING

This subject is designed to examine and study the implementation of business information systems in COBOL. It covers a review of programming principles; fundamentals of COBOL; commercial data processing systems; data structures, serial and random file processing; and includes extensive practical projects in COBOL.
Prerequisite: ISP100
Credit Points: 12 **Contact Hours:** 3 per week

■ ISP401 COMPUTER PROJECT

A major project allocated to, or proposed by, the student in any of the specialist areas (covered or otherwise) in the course, eg. a development of project, software implementation, or the solution to a particular problem in computer business applications.
Prerequisite: Completion of six subjects of the Graduate Diploma in Commercial Computing.
Credit Points: 12 **Contact Hours:** 3 per week

■ ISP414 LIBRARY SERVICES TO YOUNG PEOPLE

Introduces the most important aspects of library services to children and young adults; covers 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.
Prerequisites: ISP431, ISP433
Credit Points: 12 **Contact Hours:** 3 per week

■ ISP419 GOVERNMENT DOCUMENTS

The production, acquisition and organisation of government documents and issues related to their use. Topics include why governments publish, the range of subjects, 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.
Prerequisite: ISP433
Credit Points: 12 **Contact Hours:** 3 per week

■ ISP427 SPECIAL TOPIC – LIBRARY SCIENCE

This subject is designed to allow for significant development of, or emphasis in, library science not dealt with in other course subjects. Selected topics and

study areas will be offered as required and when the necessary expertise is available.
Prerequisite: See School announcements.
Credit Points: 12 **Contact Hours:** 3 per week

ISP428 FIELD EXPERIENCE

This subject is 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. During this period, they should have substantial experience in at least two different areas of library work under the supervision of professionally qualified librarians.
Prerequisite: Completion of 50 per cent of other subjects.
Credit Points: 4

ISP431 COLLECTION BUILDING & ACQUISITIONS

The concept of information and its relationship to information resources and needs; the various formats by which information is communicated are compared and appropriate selection criteria discussed; the characteristics of the book and other media trades, and the means by which these media are acquired; collection building in light of the needs of the immediate clientele to be served and of the wider Australian community. Other topics include procedures for keeping collections current, evaluating their usefulness and the legal and ethical dimensions of collection building.
Credit Points: 12 **Contact Hours:** 3 per week

ISP432 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 will be mentioned briefly, eg. LCC, MARC, ABN, and other cooperative efforts.
Credit Points: 12 **Contact Hours:** 3 per week

ISP433 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 and reference work.
Credit Points: 12 **Contact Hours:** 3 per week

ISP437 SPECIAL TOPIC – LIBRARY SCIENCE

This subject allows for the significant development of or emphasis in, library science not dealt with in other course subjects. Selected topics and study areas will be offered as required and when the necessary expertise is available.
Prerequisite: See School announcements
Credit Points: 8 **Contact Hours:** 2 per week

ISP441 ON-LINE INFORMATION SERVICES

Teaches students to act as the interface between users and information they may require, using a variety of available resources, systems, and technologies; includes development of on-line information services, database producers, search strategies, services offered by major vendors, in-house systems (including CD-ROM) and trends and issues in computer assisted retrieval of information.
Prerequisite: ISP101
Credit Points: 12 **Contact Hours:** 3 per week

ISP442 LIBRARY PROGRAMS MANAGEMENT

Patterns of administrative organisation in libraries; authority relationships and the nature of the library as a bureaucracy; position classification and personnel administration; the management of library finances; applications of computer technology in library management; change in organisations; the management functions of planning, organising, staffing, directing, and controlling; the concepts of leadership and professionalism.
Credit Points: 12 **Contact Hours:** 3 per week

ISP451 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 subject indexes and automated indexing.
Prerequisite: ISP432
Credit Points: 12 **Contact Hours:** 3 per week

ISP452 INDIVIDUAL STUDY

Students can pursue in depth a personal interest in library science not covered by the Graduate Diploma course core or other elective subjects. On completion of this subject, students should be able to demonstrate a detailed knowledge of the area chosen.
Prerequisite: To be determined by the nature of the study.
Credit Points: 8 **Contact Hours:** 2 per week

ISP453 INTRODUCTION TO RECORDS MANAGEMENT

An introduction to 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.
Credit Points: 8 **Contact Hours:** 2 per week

ISP454 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, eg. young people, elderly people, disabled people, ethnic minorities, business people, etc.
Credit Points: 8 **Contact Hours:** 2 per week

ISP811 BOOKS & PUBLISHING

Artistic and historical evolution of the book; judgment of book format through an understanding of production processes; techniques of printing; elements of the book; complexities of the publishing business, past and present.
Credit Points: 12

ISP855 MICROCOMPUTER APPLICATIONS

Introduction to the applications of microcomputers in a business environment; hardware and software components of a microcomputer system; operating system functions; database management systems and spreadsheets; trends in microcomputer technology and applications.
Credit Points: 12 **Contact Hours:** 3 per week

ISP998 SPECIAL TOPIC – COMMERCIAL COMPUTING

This subject is designed to allow for significant development of, or emphasis in, commercial computing not dealt with in other course subjects. Selected topics and study areas will be offered as required and when the necessary expertise is available.
Prerequisite: See School announcements.
Credit Points: 12 **Contact Hours:** 3 per week

ISP999 SPECIAL TOPIC – COMMERCIAL COMPUTING

This subject is designed to allow for significant development of, or emphasis in, commercial computing not dealt with in other course subjects. Selected topics and study areas will be offered as required and when the necessary expertise is available.
Prerequisite: See School announcements
Credit Points: 12 **Contact Hours:** 3 per week

ISX026 COMMERCIAL PROGRAMMING

Modular programming; structured design; introduction to COBOL programming; basic elements of COBOL, report generation, control breaks, tables, disk file processing.
Prerequisite: CSX035
Credit Points: 12 **Contact Hours:** 4 per week

ISX027 SYSTEMS ANALYSIS

Systems in business; overview of system analysis and design; system life cycle; tools and techniques of systems analysis; communication; file organisation and design.
Prerequisite: CSX025
Credit Points: 12 **Contact Hours:** 4 per week

ISX029 MICROCOMPUTERS: HARDWARE & APPLICATIONS

Overview of microcomputer systems; microprocessors; operating system functions on microcomputers; application packages and programming on microcomputers; evaluation and selection.
Prerequisites: CSX025, CSX035
Credit Points: 12 **Contact Hours:** 4 per week

ISX032 DATABASE SYSTEMS 1

Overview of database management systems; relational model, relational algebra and normalisation; query languages including SQL; network and hierarchical models; database management; practical work involving database systems and query languages.
Prerequisite: CSA025
Credit Points: 12 **Contact Hours:** 4 per week

ISX033 DATABASE SYSTEMS 2

Analysis of organisations and their information needs; design, implementation, management and evaluation of an information system; fourth generation techniques in the development of information systems.
Prerequisite: ISX032
Credit Points: 12 **Contact Hours:** 4 per week

ISX034 PROJECT

Individual work related to an application of computers in business or other approved area.
Prerequisites: ISX027 and other subjects as required.
Credit Points: 12

ISX036 SYSTEMS DESIGN

Structured design techniques; tools and methods of design; large system construction and implementation; project management and control; implementation and maintenance issues; alternative design methodologies and strategies.
Prerequisite: ISX027
Credit Points: 12 **Contact Hours:** 4 per week

ITB099 ENGLISH FOR ACADEMIC PURPOSES

Written and oral English for tertiary purposes; extension of structure and grammatical knowledge as well as vocabulary.
Prerequisite: Approval from Dean of Faculty.
Credit Points: 9 **Contact Hours:** 3 per week

ITB311 ADVANCED DATA COMMUNICATIONS

Advanced material in data communications; data communications network design and management (techniques and case studies); performance modelling of communications networks; comparative evaluations of data communications products and services; data communications software design and implementation; provision of integrated communications services (voice, data, video, etc.); network security; communications industry policy (eg. deregulation versus regulation).
Prerequisite: ITB501
Credit Points: 9 **Contact Hours:** 3 per week

ITB501 DATA COMMUNICATIONS

The role of data communications and on-line systems in a modern computing environment; the design, implementation and management of data communications networks; basic concepts and terminology; the International Standards Organisation reference model for open systems interconnection; communications equipment; data communications network design and management; network architectures; local area networks; Telecom facilities; transaction processing systems; distributed processing systems.
Prerequisite: CSB100
Credit Points: 9 **Contact Hours:** 3 per week

ITB503 DATA SECURITY

Combines the subjects of complex computer systems and data communications; builds upon the data communications and computer systems material; provides students with an insight into an area of rapidly expanding career opportunities.
Prerequisite: ITB501, ITP501 or ITB508
Credit Points: 9 **Contact Hours:** 3 per week

ITB508 DATA COMMUNICATIONS

The role of data communications in a modern computing environment. It examines in some detail aspects of the design, implementation and management of data communications networks. Topics to be discussed include basic telecommunications concepts, communications protocols, the ISO reference model for open systems interconnection, wide area networks, local area networks and communications network security.
Credit Points: 12 **Contact Hours:** 4 per week

ITB604 PRACTICE 1A (IT32)

ITB605 PRACTICE 3A (CS28)

ITB606 PRACTICE 3A (IS10)

ITB607 PRACTICE 3A (IS43)

ITB612 PRACTICE 5A (CS28)

ITB613 PRACTICE 1A (IF22)

ITB625 PRACTICE 3A (IF22)

ITB654 PRACTICE 2A (IT32)

ITB655 PRACTICE 4A (CS28)

ITB656 PRACTICE 4A (IS10)

ITB657 PRACTICE 4A (IS43)

■ **ITB609 PRACTICE 1B (IT32)**
■ **ITB610 PRACTICE 3B (CS28)**
■ **ITB611 PRACTICE 3B (IS10)**
■ **ITB612 PRACTICE 3B (IS43)**
■ **ITB622 PRACTICE 5B (CS28)**
■ **ITB630 PRACTICE 1B (IF22)**
■ **ITB660 PRACTICE 4B (CS28)**
■ **ITB661 PRACTICE 4B (IS10)**
■ **ITB662 PRACTICE 4B (IS43)**
■ **ITB663 PRACTICE 2B (IT32)**
■ **ITB675 PRACTICE 4A (IF22)**
■ **ITB680 PRACTICE 2B (IF22)**
■ **ITB681 PRACTICE 4B (IF22)**

Designed to coordinate the practical aspects of the lecture material presented each semester so that students develop both essential practical skills and benefit from cross fertilisation of the individual subjects. The importance of all aspects of personal communication will be emphasised throughout and students will also be strongly encouraged to perceive the social implications of computing activities and systems.
Co-requisites: Core topics in appropriate semester.
Credit Points: 6 **Contact Hours:** 2 per week

■ **ITB600 PRACTICE 3 (CS28)**
■ **ITB601 PRACTICE 3 (IS10)**
■ **ITB602 PRACTICE 3 (IS43)**
■ **ITB603 PRACTICE 1 (IT32)**
■ **ITB653 PRACTICE 2 (IT32)**
■ **ITB650 PRACTICE 4 (CS28)**
■ **ITB651 PRACTICE 4 (IS10)**
■ **ITB652 PRACTICE 4 (IS43)**
■ **ITB602 PRACTICE 5 (CS28)**

Designed to coordinate the practical aspects of the lecture material presented each semester so that students develop both essential practical skills and benefit from cross fertilisation of the individual subjects. The importance of all aspects of personal communication will be emphasised throughout and students will also be strongly encouraged to perceive the social implications of computing activities and systems.
Co-requisite: Core topics in appropriate semester.
Credit Points: 12 **Contact Hours:** 4 per week

■ ITB900 INDUSTRIAL TRAINING EXPERIENCE

Consists of a one-year work experience program. For more information about this program, see the 'Information for All Information Technology Students' at the front of the Faculty's Handbook entry.
Credit Points: 18

■ ITN311 ADVANCED DATA COMMUNICATIONS

This subject deals with advanced material in data communications. Topics covered include data communications network design and management (techniques and case studies); performance modelling of communications networks; comparative evaluations of data communications products and services; data communications software design and implementation; provision of integrated communications services (voice, data, video, etc.); network security; communications industry policy (eg. deregulation vs regulation).
Prerequisite: INB270 (or equivalent)
Credit Points: 12 **Contact Hours:** 3 per week

■ ITN502 COMPUTER 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 security plan; risk analysis; access control; cryptography; network security and encryption; key management; database security; secure operating systems and access control. On completion of this subject, 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.
Credit Points: 12 **Contact Hours:** 3 per week

■ ITN550 COMPUTER SECURITY RISK MODELLING

The tasks of identifying, valuing and securing data assets are fundamental to modern information systems security. Those tasks are explored in terms of the current state of computer risk model research and implementation. Several traditional models are compared to demonstrate sources of data for model development: asset identification and evaluation, threat, vulnerability and dependency analysis, and collection of supporting data. Students are introduced to modern risk modelling software and techniques, and are guided in the adoption of appropriate standards and methodologies.
Prerequisite: ITN502
Credit Points: 12 **Contact Hours:** 3 per week

■ ITP501 DATA COMMUNICATIONS

The role of data communications in a modern computing environment. It examines in some detail aspects of the design, implementation and management of data communications networks. Topics to be discussed include basic telecommunications concepts, communications protocols, the ISO reference model for open systems interconnection, wide area networks, local area networks and communications network security.
Prerequisite/Co-requisite: CSP112 or ISP100
Credit Points: 12 **Contact Hours:** 3 per week

■ JSB101 CONTEMPORARY ISSUES IN AUSTRALIAN SOCIETY 1

Perspectives in sociology, major approaches in sociology; social structures: ethnicity, racism, aboriginality, patriarchy, feminism, the family, family violence; economic organisation: international economic order, class, wealth, poverty, work; the environment; the future.
Credit Points: 12 **Contact Hours:** 3 per week

■ JSB102 SOCIAL ETHICS & THE JUSTICE SYSTEM

The ethical domain, the significance of ethics for the criminal justice system. The topics addressed are: what is ethics?; what is justice?; justice reasoning; human rights; an ethic of care; an ethic of empowerment; criminal justice work; the role of the police; the ethics of punishment and correction; being ethical.
Credit Points: 12 **Contact Hours:** 3 per week

■ JSB103 INTRODUCTION TO THE LEGAL SYSTEM

Law and society; development of the Australian legal system; sources of our law; statutory interpretation; dispute resolution; a critical perspective of the legal

system; introduction to the criminal justice process; investigation, adjudication and corrections; disadvantaged groups; the criminal justice process post-Fitzgerald.
Credit Points: 12 **Contact Hours:** 3 per week

JSB104 COMMUNICATION FOR JUSTICE PROFESSIONALS

Methodology and techniques in communication: emphasis on application in the law enforcement and justice professions; feelings; perception and analysis; interpersonal communication: cultural and ethnic minorities; Aboriginal people; special needs groups; interviewing: theory and practice; practical, oral and written tasks.
Credit Points: 12 **Contact Hours:** 3 per week

JSB105 PERSONAL & INTERPERSONAL RELATIONSHIPS

Self-concept, self-esteem, self-image and their relationships to personal styles; expression formation; interpersonal effectiveness and self-disclosure including related skills application; human sexuality as a central force in interactional situations; co-dependency, assertion and component skills development; conflict resolution; negotiation and aggression; conflict negotiation and the legal system; suicide; associated issues, skills development and application.
Prerequisite: JSB104
Credit Points: 12 **Contact Hours:** 3 per week

JSB106 HUMAN RESOURCE MANAGEMENT IN JUSTICE ADMINISTRATION

Understanding of organisations; structure of organisations; behaviour of individuals within organisations; selected management practices and techniques within the major institutions which make up the criminal justice system.
Credit Points: 12 **Contact Hours:** 3 per week

JSB107 INTRODUCTION TO CRIMINOLOGY

Legal and criminological conceptions of crime: nature, scope and objects of criminology. Criminological theory: classical and neo-classical theories; the positivist school; physical and biological factors and theories; psychological and psychiatric explanations; crime as a social phenomenon; radical or critical criminology. Key issues in criminology; juvenile crime; Aborigines in the criminal justice system; Royal Commission into Aboriginal Deaths in Custody; reforming the correctional system; impact of incarceration on offenders; victims of crime; white-collar and corporate crime; privacy.
Credit Points: 12 **Contact Hours:** 3 per week

JSB110 INTRODUCTION TO PROFESSIONAL STUDIES: POLICE SYSTEMS

The history of policing dating from 18th century England, through colonisation in Australia to the present day; the role and function of policing and its transitions; community-based policing and a comparative view of selected policing jurisdictions.
Credit Points: 12 **Contact Hours:** 3 per week

JSB111 INTRODUCTION TO PROFESSIONAL STUDIES: INTELLIGENCE SYSTEMS

Determining thinking and learning styles; development of metacognitive skills; the meaning and principles of intelligence and protective security; producing intelligence through collection management, collation, evaluation, integration, analysis and interpretation of data; dissemination of the intelligence product; application of personal and interpersonal skills.
Prerequisites: JSB101, JSB102, JSB103, JSB104 (or equivalent).
Credit Points: 12 **Contact Hours:** 3 per week

JSB201 PRINCIPLES OF CRIMINAL LAW 1

History and theory of criminal law; the role of criminal law and concepts of justice; concepts in criminal law; comparative criminal law; development and administration of criminal law in Queensland; legal research.
Prerequisite: JSB103
Credit Points: 12 **Contact Hours:** 3 per week

JSB202 CONTEMPORARY ISSUES IN AUSTRALIAN SOCIETY 2

Theory and practice of social research; development of theory; applying social theory; main trends in sociological thought; social justice issues.
Prerequisite: JSB101
Credit Points: 12 **Contact Hours:** 3 per week

JSB203 HUMAN DYNAMICS: THE JUSTICE SYSTEM

Human factors and crime evolving personality; inherited factors, morality and moral development, human dynamics and the police focusing on perception, recognition and identification; human dynamics in relation to the courts including the concepts of memory and its effects on evidence, eye witness testimony, juror selection and reliability, and reaching a verdict – the process and consensus; human dynamics and crime prevention, focusing on offender rehabilitation and individual and societal reactions to them, changing the environment by reducing opportunities for crime, increasing risks of detection, and community education.
Prerequisite: JSB105
Credit Points: 12 **Contact Hours:** 3 per week

JSB204 PRINCIPLES OF CRIMINAL LAW 2

Issues and problems of justice in contemporary criminal law: parties, proof, intent, responsibility, defences; the Queensland Criminal Code; legal research.
Prerequisite: JSB201
Credit Points: 12 **Contact Hours:** 3 per week

JSB205 CRIMINOLOGY 2

Contemporary criminological constructs and debate; theories of punishment and sentencing; reforming the criminal justice system.
Prerequisite: JSB107
Credit Points: 12 **Contact Hours:** 3 per week

JSB210 PROFESSIONAL STUDIES 1: LAW ENFORCEMENT PROCEDURE & PRACTICE

Aspects of the role and function of policing; enforcement practices: non-arrest, arrest situations including supporting documentation; evidentiary sources and gathering methodology; crime trends and their impact on policing practices.
Prerequisite: JSB110
Credit Points: 12 **Contact Hours:** 3 per week

JSB211 PROFESSIONAL STUDIES 1: INTELLIGENCE I

Detailed study and application of the intelligence process (cycle); study of intelligence support to operational staffs 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.
Prerequisite: JSB111 (or equivalent)
Credit Points: 12 **Contact Hours:** 3 per week

JSB212 PROFESSIONAL STUDIES 2: LAW ENFORCEMENT & INTERPROFESSIONAL COOPERATION

The role and function of policing in conjunction with other community agencies, particularly emergency service agencies; the cooperation necessary and the awareness of reciprocal roles and functions in given situations.
Credit Points: 12 **Contact Hours:** 3 per week

JSB213 PROFESSIONAL STUDIES 2: INTELLIGENCE 2

The conduct of protective security audits in personnel, material and infrastructure areas; application of protective security to conferences, VIP protection and witness protection; access control and layered security.
Prerequisite: JSB211
Credit Points: 12 **Contact Hours:** 3 per week

JSS001 THE LAW & LEGAL INSTITUTIONS

This subject will provide students with a sound knowledge of relevant legal institutions and procedures, as well as assist students to develop an ability to analyse and critique both the strengths and weaknesses inherent in our legal system. In so doing, the subject will trace the development of law in Australia from its early beginnings to the present, as an outcome of meeting the needs of a changing society.
Credit Points: 12 **Contact Hours:** 3 per week

JSS005 INDIVIDUAL LEGAL RESPONSIBILITIES

The major areas of law affecting a person upon attaining the age of eighteen years. The main areas considered in terms of individual legal responsibilities will be employment, family responsibilities, and the renting and buying of a house. Consideration is also given to the social context in which various statute laws are embedded.
Credit Points: 12 **Contact Hours:** 3 per week

JSX101 REPORTING 1

Introduction to basic computer-compatible machine shorthand theory and elementary court, literary and parliamentary material; the functions and responsibilities of professional court and parliamentary reporters in public and private sectors.
Credit Points: 24 **Contact Hours:** 10 per week

JSX102 REPORTING 2

Consolidation and reinforcement of the machine shorthand theory learnt in JSX101. Emphasis is placed on speed development and vocabulary expansion. Students are instructed in court and parliamentary reporting techniques and procedures, and are introduced to legal, medical and technical terminology.
Prerequisite: JSX101
Credit Points: 36 **Contact Hours:** 14 per week

JSX201 REPORTING 3

The emphasis is on speed development and court and parliamentary reporting practices. Students are exposed to a broad range of subject matter and gain experience in reporting material from many jurisdictions. Students develop familiarity with medical terminology and with a large range of specialised terms used in areas of diverse interest.
Prerequisite: JSA102
Credit Points: 36 **Contact Hours:** 16 per week

JSX202 REPORTING 4

Further development and refinement of students' high-speed shorthand writing and transcription skills. Students concentrate on multi-voice testimony and note editing for parliamentary work. For successful completion of the subject, students must attain a machine shorthand writing speed of 200 wpm with 98% transcription accuracy.
Prerequisite: JSX201
Credit Points: 24 **Contact Hours:** 12 per week

JSX203 WORKPLACE EXPERIENCE

Students use the reporting skills developed in earlier semesters in an on-the-job context in the State District and Supreme Courts, and Queensland Parliament. Lectures cover development of interpersonal skills in the work environment and include orientation sessions at the Court Reporting Bureau and State Hansard. Students alternate between reporting at the Court Reporting Bureau and Hansard, and participating in transcription sessions on campus.
Prerequisite: JSX201 **Co-requisite:** JSX202
Credit Points: 12 **Contact Hours:** 6 per week

LAB002 ADULT LITERACY

Introduction to adult literacy and provisions for further training; teaching and working with a client under the supervision of the lecturer, reflecting on each teaching session with the client.
Credit Points: 8 **Contact Hours:** 3 per week

LAB003 STUDY OF LANGUAGE

Examination of the development of English with a view to increasing the teacher's understanding of how language works, particularly in the written mode; studies of the developing grammars and vocabulary of English are undertaken to enhance the teacher's knowledge of linguistic terminology and to contribute to improved understanding of writing; introduction to traditional grammar and to the modern functional grammars; considerations of usage and style.
Credit Points: 4 **Contact Hours:** 2 per week

LAB004 LANGUAGE & COMMUNICATION

The nature and function of language and communication; characteristics of the English language; language variation and English; the role of language in social control and persuasion; communication in a multicultural society; discourse analysis.
Credit Points: 8 **Contact Hours:** 2 per week

LAB005 STORYTELLING IN VARIOUS MEDIA

Function of storytelling with young children; selecting stories to tell from a range of traditional, contemporary story and non-story sources; storytelling techniques; planning storytelling across the curriculum.
Credit Points: 8 **Contact Hours:** 2 per week

LAB223 LANGUAGE EDUCATION 1

Language as a cultural and social phenomenon: language in terms of cultural and social situations which generate oral, written and media texts; the different cultural values of texts. The language learner and user; the aim of language education. Students as language users: competency as a language user; reflection on effectiveness and appropriateness of language use; application of competencies in the classroom.
Credit Points: 8 **Contact Hours:** 3 per week

LAB230 LANGUAGE EDUCATION 2
Extension of the language concepts developed in LAB223 and introduction to language teaching. Focus of the school setting with an emphasis on the design, implementation and evaluation of effective language programs in schools.
Prerequisite: LAB223
Credit Points: 12 **Contact Hours:** 3 per week

LAB260 LITERATURE & EDUCATION 1
Study of a range of adult literature from different sociocultural contexts. Adolescent and children's literature reflecting changing sociocultural values. Examination of ways in which historical changes in concepts of childhood are reflected in stories written for children. Aspects of literature which remain constant and examination of some of these archetypes in traditional and contemporary literature.
Credit Points: 8 **Contact Hours:** 3 per week

LAB261 LITERATURE & EDUCATION 2
Continuation of LAB260. Exploring how the language of childhood experiences and everyday interaction are translated into art forms in novels, plays and poetry. Examination of how the literature of different times and different cultures reflects the appropriate culture. Students have the opportunity to concentrate on the study of literature or on the development of their own writing.
Prerequisite: LAB260
Credit Points: 12 **Contact Hours:** 3 per week

LAB262 LITERATURE & EDUCATION 3
This advanced subject requires students to use the work done in previous subjects in three ways: to engage in an area of specialised study not completely covered in earlier subjects; to select an aspect of their specialised study for independent reading and research over a range of genre and styles; and to present their work to their peers in a seminar format.
Prerequisite: LAB261
Credit Points: 12 **Contact Hours:** 3 per week

LAB270 LOTE EDUCATION
The development of classroom applications, strategies, resources, evaluation techniques for the teaching of languages other than English, through an application of knowledge from prerequisite subjects.
Prerequisites: LAB223, LAB230
Credit Points: 8 **Contact Hours:** 3 per week

LAB271 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 within their conceptual range.
Prerequisite: HUB419
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.
Credit Points: 12 **Contact Hours:** 3 per week

LAB321 WRITING WORKSHOP
This subject is based on contemporary understanding of writing. 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) that fall within the activity of writing.
Prerequisite: LAB320
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; appropriateness to 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.
Credit Points: 12 **Contact Hours:** 3 per week

LAB323 ADOLESCENT & YOUNG ADULT FICTION
The scope and nature of young adult literature; strategies for evaluation and selection; recent research into adolescents' reading needs, interests and responses; methods of promoting and using young adult books in the curriculum.
Prerequisite: HUB100
Credit Points: 12 **Contact Hours:** 3 per week

LAB350 ENGLISH CURRICULUM & TEACHING STUDIES 1
Builds on CUB301 to give a greater understanding of the nature of English as an applied curriculum area. Provides insights into relevant Queensland syllabus and curriculum documents, develops competencies in planning and teaching and makes close links with teaching practice.
Prerequisites: CUB301 and at least 48 credit points in each relevant discipline area.
Credit Points: 8 **Contact Hours:** 3 per week

LAB351 ENGLISH CURRICULUM & TEACHING STUDIES 2
Studied in association with CUB302. Provides opportunities for consideration and practical application of broad curricular and teaching principles and systems policies within the more specific context of this curriculum area. As with CUB302, establishes principles which will be used to guide school experience during teaching practice and also as a beginning teacher.
Prerequisite: LAB350
Co-requisites: CUB302, EDB302
Credit Points: 12 **Contact Hours:** 3 per week

LAB352 ENGLISH CURRICULUM & TEACHING STUDIES 3
Last in the Curriculum and Teaching Studies series with a major focus on contemporary issues and emerging trends pertaining to curriculum development in this curriculum area. Includes study of advanced planning and teaching strategies and provides opportunities for application of planning and teaching skills during practice teaching.
Prerequisites: LAB350, LAB351, CUB302
Credit Points: 8 **Contact Hours:** 3 per week

LAB353 FILM & MEDIA STUDIES CURRICULUM & TEACHING STUDIES 1
Builds on CUB301 to give a greater understanding of the nature of film and media studies as an applied

curriculum area. Provides insights into relevant Queensland syllabus and curriculum documents, develops competencies in planning and teaching and makes close links with teaching practice.
Prerequisites: CUB301 and at least 48 credit points in each relevant discipline area.
Credit Points: 8 **Contact Hours:** 3 per week

LAB354 FILM & MEDIA CURRICULUM & TEACHING STUDIES 2

Studied in association with CUB302. Provides opportunities for consideration and practical application of broad curricular and teaching principles and systems policies within the more specific context of this curriculum area. As with CUB302, establishes principles which are used to guide school experience during teaching practice and also as a beginning teacher.
Prerequisite: LAB353
Co-requisites: CUB302, EDB302
Credit Points: 12 **Contact Hours:** 3 per week

LAB355 FILM & MEDIA CURRICULUM & TEACHING STUDIES 3

Last in the Curriculum and Teaching Studies series with a major focus on contemporary issues and emerging trends pertaining to curriculum development in this curriculum area. Includes study of advanced planning and teaching strategies and provides opportunities for application of planning and teaching skills during practice teaching.
Prerequisites: LAB353, LAB354, CUB302
Credit Points: 8 **Contact Hours:** 3 per week

LAB356 LOTE CURRICULUM & TEACHING STUDIES 1

Builds on CUB301 to give a greater understanding of the nature of LOTE as an applied curriculum area. Provides insights into relevant Queensland syllabus and curriculum documents, develops competencies in planning and teaching and makes close links with teaching practice.
Prerequisites: CUB301 and at least 48 credit points in each relevant discipline area.
Credit Points: 8 **Contact Hours:** 3 per week

LAB357 LOTE CURRICULUM & TEACHING STUDIES 2

Studied in association with CUB302. Provides opportunities for consideration and practical application of broad curricular and teaching principles and systems policies within the more specific context of this curriculum area. As with CUB302, establishes principles which are used to guide school experience during teaching practice and also as a beginning teacher.
Prerequisite: LAB356
Co-requisites: CUB302, EDB302
Credit Points: 12 **Contact Hours:** 3 per week

LAB358 LOTE CURRICULUM & TEACHING STUDIES 3

Last in the Curriculum and Teaching Studies series with a major focus on contemporary issues and emerging trends pertaining to curriculum development in this curriculum area. Includes study of advanced planning and teaching strategies and provides opportunities for application of planning and teaching skills during practice teaching.
Prerequisites: MDB362, MDB363, CUB302
Credit Points: 8 **Contact Hours:** 3 per week

LAB410 LANGUAGE CURRICULUM ISSUES

This subject is designed for primary and secondary teachers. It involves 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.
Credit Points: 12 **Contact Hours:** 3 per week

LAB440 THE TEACHER & THE WRITING PROCESS

Development of writing in the light of the language in use model, recent research, and classroom practice. It is designed for the teacher P-12. Students are expected to develop their own folio of writing, an understanding of current approaches to writing curriculum, and writing programs for their classrooms.
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.
Prerequisite: Language arts and literature studies at Diploma of Teaching level.
Credit Points: 12 **Contact Hours:** 3 per week

LAB442 TUTORING PARENTS AS LITERACY TUTORS

Parents are the most valuable resource available to teachers in the nineties. Today, with more emphasis on involving parents in all areas of decision making in schools, it is vital that teachers can communicate proficiently with parents of all educational and socioeconomic backgrounds. This subject provides background knowledge and practice in the skills and knowledge required for successful tutoring of parents as literacy tutors of their children, both in the classroom and at home.
Credit Points: 12 **Contact Hours:** 3 per week

LAB443 TRENDS IN THE TEACHING OF READING

This subject provides students with the opportunity to extend their understanding of the reading process. It examines current views about reading in order to identify key concepts of the theory. From this the implications for classroom practice are drawn. It also identifies factors which influence readers and texts. The roles these play in the understanding of the meanings made are discussed. Learning situations based on these understandings are developed.
Prerequisite: Studies in the teaching of reading at Diploma of Teaching level.
Credit Points: 12 **Contact Hours:** 3 per week

LAB444 LEARNING TO READ THROUGH READING/WRITING

Development of the teachers' understanding of the importance of teaching children how to use language to learn. Students are presented with recent research into the topic, a range of strategies for empowering children to use language to learn, as well as the requirement to apply this knowledge in a classroom setting.
Credit Points: 12 **Contact Hours:** 3 per week

LAB445 LANGUAGE LEARNING THROUGH FLIP

This subject is designed for students who fulfil guidelines 6.1 and 6.2 of FLIP. As well as presenting a learning log, students develop an action research project in language/literacy and report on that project (preferably in a symposium). In their report, students are expected to display a critical understanding of the issues in language curriculum relevant to their research.
Credit Points: 12 **Contact Hours:** 3 per week

LAB446 GRAMMAR FOR WRITERS

This subject is 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.
Credit Points: 12 **Contact Hours:** 3 per week

LAB490 RECENT DEVELOPMENTS IN LANGUAGE/READING

The nature of language; functions of language; language development; oracy and literacy and their interrelationships; planning and implementation of a language arts unit or program.
Credit Points: 12 **Contact Hours:** 3 per week

LAN601 FOUNDATIONS OF ENGLISH/ LANGUAGE ARTS EDUCATION

Theoretical and historical perspectives on the development of English/language arts curricula; current debates, theory and research in the teaching of reading, writing, listening, speaking and viewing in the context of the primary and secondary classrooms; programming and assessment in the English/language arts classroom; continuity and sequence in the teaching of English/language arts.
Credit Points: 12 **Contact Hours:** 3 per week

LAN602 LITERACY & SCHOOLING

Theoretical, historical and cultural models of literacy; literacy as a contemporary social and educational problem; literacy, gender and class; literacy and minority groups; literacy and changing theories of reading and writing; literacy and the curriculum; subject-specific literacies and whole-school literacy policies.
Credit Points: 12 **Contact Hours:** 3 per week

LAP420 COMMUNICATION CURRICULUM & TEACHING STUDIES A

An introduction to the principles and practices of the communication curriculum area subjects of English, film and media studies, journalism and applied communication studies in Queensland secondary schools. Within this curriculum area, students design and teach lessons appropriate to adolescents and young adults in schools.
Prerequisite: Appropriate Discipline Studies in the undergraduate degree.
Co-requisite: EDP450
Credit Points: 24 **Contact Hours:** 6 per week

LAP421 ENGLISH CURRICULUM & TEACHING STUDIES B

Provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies, and examines the roles of the teacher in the community and the profession.
Prerequisite: LAP420
Co-requisite: EDP451
Credit Points: 12 **Contact Hours:** 3 per week

LAP422 FILM & TELEVISION CURRICULUM & TEACHING STUDIES B

This Curriculum B subject provides opportunities for students to critically examine and develop skills and understandings in significant areas of teaching and learning in film and television. It provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies and examines the roles of the teacher in the community and the profession.
Prerequisite: LAP420 **Co-requisite:** EDP451
Credit Points: 12 **Contact Hours:** 3 per week

LAP423 JUNIOR ENGLISH CURRICULUM & TEACHING STUDIES C

This Curriculum C subject offers studies which enable appropriately qualified students to teach junior English at lower levels of the secondary school. It allows the application of principles, skills and understandings which have been developed in the Curriculum A subject and which are expanded in the Curriculum B subject.
Credit Points: 12 **Contact Hours:** 3 per week

LAP424 TEACHING ENGLISH AS A SECOND LANGUAGE CURRICULUM & TEACHING STUDIES C

This Curriculum C subject provides opportunities for students with an appropriate background to prepare to teach English as a second language. It develops skills and understandings in planning, assessment and teaching and learning strategies, and builds on the general principles of the Curriculum A and B groups of subjects.
Credit Points: 12 **Contact Hours:** 3 per week

LAP430 LOTE CURRICULUM & TEACHING STUDIES A

A foundation subject for students wishing to teach foreign languages in the secondary and/or primary schools. Due emphasis is given to the learner-centred approach to languages teaching; teaching implications of the principles of language learning; basic teaching skills focussing on lesson organisation and catering for learner differences; resourcing the interactive classroom for whole class, group and individual learning.
Prerequisite: Appropriate Discipline Studies in the undergraduate degree.
Co-requisite: EDP450
Credit Points: 24 **Contact Hours:** 6 per week

LAP431 CHINESE CURRICULUM & TEACHING STUDIES B

Provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies, and examines the roles of the teacher in the community and the profession.
Prerequisite: LAP430 **Co-requisite:** EDP451
Credit Points: 12 **Contact Hours:** 3 per week

LAP432 FRENCH CURRICULUM & TEACHING STUDIES B

Provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies, and examines the roles of the teacher in the community and the profession.
Prerequisite: LAP430 **Co-requisite:** EDP451
Credit Points: 12 **Contact Hours:** 3 per week

LAP433 GERMAN CURRICULUM & TEACHING STUDIES B

Provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies, and examines the roles of the teacher in the community and the profession.
Prerequisite: LAP430 **Co-requisite:** EDP451
Credit Points: 12 **Contact Hours:** 3 per week

LAP434 INDONESIAN CURRICULUM & TEACHING STUDIES B

Provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies, and examines the roles of the teacher in the community and the profession.
Prerequisite: LAP430 **Co-requisite:** EDP451
Credit Points: 12 **Contact Hours:** 3 per week

LAP435 ITALIAN CURRICULUM & TEACHING STUDIES B

Provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies, and examines the roles of the teacher in the community and the profession.
Prerequisite: LAP430 **Co-requisite:** EDP451
Credit Points: 12 **Contact Hours:** 3 per week

LAP436 JAPANESE CURRICULUM & TEACHING STUDIES B

Provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies, and examines the roles of the teacher in the community and the profession.
Prerequisite: LAP430 **Co-requisite:** EDP451
Credit Points: 12 **Contact Hours:** 3 per week

LAP437 LOTE IN THE PRIMARY SCHOOL CURRICULUM & TEACHING STUDIES C

This Curriculum C subject provides opportunities for students with an appropriate background to prepare to teach LOTE in the primary school. It develops skills and understanding in planning, assessment and teaching and learning strategies, and builds on the general principles of the Curriculum A and B groups of subjects.
Credit Points: 12 **Contact Hours:** 3 per week

LAP440 LANGUAGE & LITERACY 1

Developing and understanding the role language plays in society: appropriate language for different social purposes; the functions and structures of language; the range of genres. Language/literacy learning: initial learning of language; continued development of language/literacy. Approaches to language/literacy teaching: strategies for development of spoken and written language; language in use model and implications for teaching; other models on which the language education framework is based.
Credit Points: 8 **Contact Hours:** 3 per week

LAP441 LANGUAGE & LITERACY 2

Promoting language learning: strategies for promoting language/literacy learning in the classroom; learning through and about language. Monitoring language growth: strategies for observing, monitoring language/literacy growth. Planning language/literacy programs: process of planning programs; organising the learning environment to promote language development. Independent study: students select an area and complete an independent study.
Prerequisite: LAP440
Credit Points: 8 **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.
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.
Credit Points: 12 **Contact Hours:** 3 per week

LAP503 LITERATURE & LITERACY: RESOURCES & STRATEGIES

Resources and strategies for teacher-librarians to enable them to work cooperatively with teachers in language across the curriculum; developmental approach to reading and the selection of appropriate materials; genre studies; reader response theories; promotion strategies.
Credit Points: 12 **Contact Hours:** 2 per week

LAP504 SCHOOL LIBRARY RESOURCES: ORGANISATION & ACCESS

School library administration and organisation systems, including computer applications; bibliographic organisation principles and procedures, and implications for self-directed learning; organisation and maintenance of, and access to, resources including equipment; field program, including school experience (3 weeks).
Credit Points: 12

LAP505 COMMUNICATION & MANAGEMENT IN SCHOOL LIBRARY RESOURCE CENTRES

Extension of 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.
Credit Points: 12

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

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.
Credit Points: 12

LAP508 BOOKS & PUBLISHING

Artistic and historical evolution of the book; judgment of book format through an understanding of production processes; techniques of printing; elements of the book; complexities of the publishing business, past and present.
Credit Points: 12

LAP509 DIRECTED STUDY

An individually designed subject which allows students, under the supervision of a staff member, to increase their knowledge in a particular area relevant to teacher-librarianship.
Credit Points: 12

LAP510 INTERACTIVE TECHNOLOGIES IN INSTRUCTION

Theories of interactive communications; interactive resources; videodisk; teleconferencing; computer conferencing and electronic mail; planning an instructional program.
Credit Points: 12

LAP511 LITERACY EDUCATION & LIBRARIES

Educational role of libraries; literacy and basic education programs in libraries; literacy resource collections; multicultural library services; international developments.
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 a wide variety of reader responses.
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.
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 3-day study school or six 2-hour evening sessions.
Credit Points: 12

LAP515 RESOURCE SERVICES FOR SPECIAL NEEDS

Resource services requirements of gifted and talented, intellectually handicapped and physically handicapped school students; implications of mainstreaming; equity issues.
Credit Points: 12

LAP516 SPECIAL SEMINAR

Study of a specific aspect of teacher-librarianship, the subject to be determined by the University according to special need and/or the availability of special expertise.
Credit Points: 12

LAP517 STORYTELLING

Function of the story and storytelling in learning and teaching; preparing, developing and delivering stories; story and non-story resources; storytelling across the curriculum.
Credit Points: 12

LAP518 VISUAL LITERACY & RESOURCE DESIGN

Concepts of visual literacy; learning styles; interpretation of visuals; design and evaluation of visually-based resources.
Credit Points: 12

LEB101 HUMAN SEXUALITY & LEARNING

Physical and psychological development; attitudes and beliefs about sex; sexuality and sex education in childhood and adolescence; sex roles; contraception, sexually transmitted diseases, sexuality, disability and illness; sexual abuse of children; sexual dysfunction; pregnancy; abortion; sex education in schools.
Credit Points: 8 **Contact Hours:** 2 per week

LEB240 DEVELOPMENT & LEARNING 1

The nature and role of theory in providing perspectives on issues in human development; the range of opinions and beliefs which have shaped theories of development and learning and influenced educational practice; how psychology and other disciplines influence the consideration of developmental issues; perspectives on development and learning in the areas of physical, cognitive, linguistic and socio-emotional processes.
Credit Points: 12 **Contact Hours:** 3 per week

LEB241 DEVELOPMENT & LEARNING 2

Historical and contemporary psychological theories and approaches: scientific behaviourist models, behaviour modification applications, personal and social development, cognitive models, information processing models, creativity and giftedness. The teacher's role in facilitating learning. Issues in educating children with special needs: the range of individual differences, concept of integration, problems of labelling, non-discriminatory assessment, instructional techniques.
Prerequisite: LEB240
Credit Points: 8 **Contact Hours:** 3 per week

LEB270 HUMAN RELATIONSHIPS EDUCATION

This elective has a dual focus: effective interpersonal communication by teachers as members of the school and community; and the curriculum and pedagogical process for teaching children. These curriculum programs focus on care, personal development, work experience and community-based learning. Students undertaking this elective are introduced to these processes through lectures, seminars and workshops and appropriate field study experiences.
Credit Points: 8 **Contact Hours:** 3 per week

LEB280 DEVELOPMENT & LEARNING ELECTIVE

Introduction to a wide range of development and learning perspectives. A more in-depth understanding of specific psychological issues in education and their application to teaching.
Prerequisites: LEB240, LEB241
Credit Points: 8 **Contact Hours:** 3 per week

LEB301 ADOLESCENT DEVELOPMENT & HUMAN RELATIONSHIPS

Adolescent development and human relationships: adolescence and the search for identity; social, physical, cognitive and moral development; overview of human relationships; self-concept and self-awareness; interpersonal relationships; group processes; and educational applications of interpersonal psychology.
Credit Points: 12 **Contact Hours:** 3 per week

LEB302 PSYCHOLOGY OF LEARNING & TEACHING

Approaches to learning as well as factors that influence effective teaching and learning: motivation, classroom management, learning styles, individual differences, teaching effectiveness, as these issues apply to the full range of learners, including those with special needs.
Credit Points: 12 **Contact Hours:** 3 per week

LEB320 HELPING STUDENTS WITH LEARNING PROBLEMS

Analysis of the correlates of low achievement in secondary schools with a focus on slow learners and students with specific learning disabilities; development and critical evaluation of a range of teaching/learning strategies designed to assist such students.
Prerequisite: LEB302
Credit Points: 12 **Contact Hours:** 3 per week

LEB321 TEACHER AS COUNSELLOR

This subject is not designed to prepare counsellors. It develops advanced interpersonal skills that assist in the personal and professional development of students and increase their ability to facilitate the development of positive interpersonal learning environments in schools.

Prerequisite: LEB302
Credit Points: 12 **Contact Hours:** 3 per week

LEB350 HUMAN RELATIONSHIPS EDUCATION CURRICULUM & TEACHING STUDIES 1

Builds on CUB301 to give a greater understanding of the nature of human relationships education as an applied curriculum area. Provides insights into relevant Queensland syllabus and curriculum documents, develops competencies in planning and teaching and makes close links with teaching practice.

Prerequisites: CUB301 and at least 48 credit points in each relevant discipline area.
Credit Points: 8 **Contact Hours:** 3 per week

LEB351 HUMAN RELATIONSHIPS EDUCATION CURRICULUM & TEACHING STUDIES 2

Studied in association with CUB302. Provides opportunities for consideration and practical application of broad curricular and teaching principles and systems policies within the more specific context of this curriculum area. As with CUB302, establishes principles which are used to guide school experience during teaching practice and also as a beginning teacher.

Prerequisite: LEB350
Co-requisites: CUB302, EDB302
Credit Points: 12 **Contact Hours:** 3 per week

LEB352 HUMAN RELATIONSHIPS EDUCATION CURRICULUM & TEACHING STUDIES 3

Last in the Curriculum and Teaching Studies series with a major focus on contemporary issues and emerging trends pertaining to curriculum development. Includes study of advanced planning and teaching strategies and provides opportunities for application of planning and teaching skills during practice teaching.

Prerequisites: PUB310, PUB320, CUB302
Credit Points: 8 **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.

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

LEB421 APPLIED STRATEGIES IN CLASSROOM LEARNING

Contemporary theoretical approaches to human development and learning; dimensions of learning; correlates of learning; developing teaching/learning strategies; gathering and interpreting information; consideration of a range of advanced teaching/learning strategies.

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

LEB422 ADULT LEARNING

Contemporary theoretical perspectives and research in adult learning. Factors which influence learning. Application of theoretical perspectives to facilitate learning in adult educational environments.

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. It is the aim of this subject to familiarise students with the history of this concept's emergence, its definitional problems, current explanatory theories and models, and to ensure that their presentation promotes the development of the concept as an aspect of problem solving in personal development and pedagogical applications.

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

LEB431 INNOVATIVE TEACHING METHODS

Cooperative learning and developmental goals; effect of cooperative learning on achievement, attitudes and interpersonal relations. A series of classroom strategies applicable to all grade levels (preschool through TAFE/university) and to all subject areas. Access to classroom or other structured learning group essential.

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.

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, adlerian, existential person-centered, Gestalt, transactional analysis, behaviour, rational-emotive, and reality. Skills and techniques associated with each major theory are presented and related to educationally-based problems and concerns. The effects and outcomes of counselling inventions are investigated and ethical issues are addressed.

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

LEB443 HUMAN SEXUALITY & LEARNING

Physical and psychological development; attitudes and beliefs about sex; sexuality and sex education in childhood and adolescence; sex roles; contraception; sexually transmitted diseases; sexuality, disability and illness; sexual abuse of children; sexual dysfunction; pregnancy; abortion; sex education in schools. Compulsory study school for external students.

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

■ **LEB444 HUMAN SEXUALITY & DEVELOPMENT**

An examination of social and legal issues associated with human sexual behaviour and their impact on adult development and identity. Behaviours investigated are pregnancy, abortion, infertility, child sexual abuse, rape, pornography, prostitution and transexuality.

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 subject, rather than focus 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. This subject does not attempt to provide a definitive curriculum to conquer the drug problems of all young people. It attempts to help teachers to develop an approach which is likely to be effective.

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.

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

■ **LEB447 PSYCHOLOGY OF READING DISABILITY**

Investigation of reading and spelling disability; an overview of assessment and remedial procedures; an examination of the consequences of this phenomenon.

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

■ **LEB490 HUMAN DEVELOPMENT & LEARNING**

Human development; cognitive; effective and psychomotor development; classroom management and interactions; learning and problem solving, educational evaluation. Teaching atypical children: the needs of atypical children, special teaching procedures, referral agencies.

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

■ **LEP410 HUMAN DEVELOPMENT & LEARNING A**

Using their own life experiences as developing human beings and learners as a basis for discussion, students study adolescent development in this subject within the broader contexts of life-span development, social change with reference to youth sub-cultures and popular cultures, and observations of contemporary educational practice during teaching practice. The subject introduces students to the complex process of teaching and learning.

Co-requisite: CPP410

Credit Points: 9 **Contact Hours:** 3 per week

■ **LEP411 HUMAN DEVELOPMENT & LEARNING B**

This subject builds on LEP410 A and focuses on the students as emerging professional practitioners. Interpersonal relationships and group processes in relation to school students, school and community personnel are emphasised.

Prerequisite: LEP410 **Co-requisite:** CUP411

Credit Points: 9 **Contact Hours:** 3 per week

■ **LEP420 HUMAN RELATIONS EDUCATION CURRICULUM & TEACHING STUDIES C**

This Curriculum C subject provides opportunities for students with an appropriate background to prepare to teach human relations education. It develops skills and understandings in planning, assessment and teaching and learning strategies, and builds on the general principles of the Curriculum A and B groups of subjects.

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

■ **LEP421 ADULT LEARNERS CURRICULUM & TEACHING STUDIES C**

This Curriculum C subject provides opportunities for students with an appropriate background to prepare to teach adult learners. It develops skills and understandings in planning, assessment and teaching and learning strategies, and builds on the general principles of the Curriculum A and B groups of subjects.

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

■ **LEP422 EXCEPTIONALITY CURRICULUM & TEACHING STUDIES C**

This Curriculum C subject provides opportunities for students with an appropriate background to prepare to teach exceptional learners. It develops skills and understandings in planning, assessment and teaching and learning strategies, and builds on the general principles of the Curriculum A and B groups of subjects.

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

■ **LEP430 HUMAN DEVELOPMENT & LEARNING**

Understand child development and learning theory; evaluate the practical implications of this theoretical perspective within existing and changing practices in primary educational settings; the nature and acquisition of knowledge; the nature of teaching and learning; the historical antecedents of concepts and theories relating to child growth, development and learning.

Credit Points: 8 **Contact Hours:** 3 per week

■ **LEP501 LEARNERS WITH SPECIAL NEEDS**

Special educational needs of school (P-12) and TAFE College learners arising from cognitive, behavioural and sociocultural differences; diagnosing student functioning in cognitive, social-emotional, self-help and motor skill areas; developing teaching strategies suited to student learning styles; techniques of formative and summative assessment appropriate to student learning needs; mixed ability teaching.

Credit Points: 10 **Contact Hours:** 3 per week

■ **LEP502 DEVELOPING RELATIONSHIPS & GROUPS**

Overview of concepts relating to a model of interpersonal relationships; study of some human relationships concepts such as verbal and nonverbal interpersonal communication, power, influence, authority/control, trust and mistrust, confrontation and constructive resolution of conflict; interviewing and consulting skills; self-concept studies; small group dynamics; student and teacher stress; assertion-

relation theory and skills, resource teacher as change agent.
Credit Points: 10 **Contact Hours:** 4 per week

■ **LEP503 REMEDIATING LITERACY DIFFICULTIES**

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; service delivery based on an adjunct model.
Credit Points: 10 **Contact Hours:** 3 per week

■ **LEP504 RESOURCE TEACHING FIELDWORK 1**

Students participate in colloquia on resource/support teaching and undertake school or college-based projects related to other subjects studied in the first half of the course; observe and report on classroom teacher and students on a particular resource teaching project; demonstrate a range of personal and professional attributes necessary for successful resource/support teaching.
Credit Points: 8 **Contact Hours:** 2 per week

■ **LEP505 STUDY SKILLS, LITERACY & LEARNING**

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, functions of language and foundations studies of language and learning leading to detailed study of composing and comprehending tasks as they relate to curriculum demands; recent language/learning research, genre theory; study skills development and organisation; test-wiseness, notetaking, organisation, managing examination stress; service delivery based on an adjunct model.
Credit Points: 10 **Contact Hours:** 3 per week

■ **LEP506 RESOURCE TEACHING FIELDWORK 2**

Students participate in colloquia on resource/support teaching and undertake school or college-based projects related to other subjects studied in the second half of the course; observe and report on curriculum and sociocultural influences in schools/colleges; work with classroom teacher and students on a study skills, language and learning project; demonstrate a range of advanced personal and professional attributes necessary for successful resource/support teaching.
Credit Points: 8 **Contact Hours:** 2 per week

■ **LEP507 RESEARCH METHODS IN RESOURCE TEACHING**

Introduction to quantitative and qualitative research methodologies; literature reviews; gaining access to research sites; data collection and analysis; ethical issues in research; reporting research; completion of minor research task or preparation of Master's research proposal.
Credit Points: 10 **Contact Hours:** 3 per week

■ **LEP508 INDEPENDENT STUDY IN RESOURCE TEACHING**

Action research, literature reviews or special project development on a topic arising from resource/support teaching; designing appropriate investigative strategies; implementation of investigation; producing and presenting final report using computer and various audiovisual formats as required.
Credit Points: 10 **Contact Hours:** 3 per week

■ **LEP509 RESOURCE TEACHING 1A**

See LEP504
Credit Points: 4

■ **LEP510 RESOURCE TEACHING 1B**

See LEP504
Credit Points: 4

■ **LEP511 RESOURCE TEACHING 2A**

See LEP506
Credit Points: 4

■ **LEP512 RESOURCE TEACHING 2B**

See LEP506
Credit Points: 4

■ **LEP515 HUMAN SEXUALITY & LEARNING**

Physical and psychological development; attitudes and beliefs about sex; sexuality and sex education in childhood and adolescence; sex roles; contraception; sexually transmitted diseases; sexuality, disability and illness; sexual abuse of children; sexual dysfunction; pregnancy; abortion; sex education in schools.
Credit Points: 12 **Contact Hours:** 3 per week

■ **LEP516 HUMAN SEXUALITY & DEVELOPMENT**

An examination of social and legal issues associated with human sexual behaviour and their impact on adult development and identity. Behaviours investigated are pregnancy, abortion, infertility, child sexual abuse, rape, pornography, prostitution and transexuality.
Credit Points: 12 **Contact Hours:** 3 per week

■ **LEP517 ETHICS & HUMAN RELATIONSHIPS EDUCATION**

Philosophical approaches to human relationships; moral philosophy and education; development of an integrated and clearly articulated argument for a philosophy of human relationships education.
Prerequisite: LEP515
Credit Points: 12 **Contact Hours:** 3 per week

■ **LEP518 HUMAN RELATIONSHIPS ACROSS THE LIFESPAN**

The developmental processes; issues in human development across the lifespan; development theory and research; development of human relations; the sociocultural context of development and relationships.
Credit Points: 12 **Contact Hours:** 3 per week

■ **LEP519 INTERPERSONAL & PROFESSIONAL RELATIONSHIPS 1**

An examination of the major concepts and models used to explain interpersonal relationship development, social influence and attitude change; the development of communication and counselling skills and theoretical understandings.
Credit Points: 12 **Contact Hours:** 3 per week

■ **LEP520 INTERPERSONAL & PROFESSIONAL RELATIONSHIPS 2**

An examination of the major concepts and models used to explain interpersonal relationship development, social influence and attitude change; the development of communication and counselling skills and theoretical understandings.
Prerequisite: LEP519
Credit Points: 12 **Contact Hours:** 3 per week

LEP521 SOCIOCULTURAL CONTEXT OF HUMAN RELATIONSHIPS EDUCATION

Poverty; marriage and partnerships, divorce and separation; family violence; disability.
Credit Points: 12 **Contact Hours:** 3 per week

LEP522 INTERPERSONAL & SMALL GROUP TEACHING STRATEGIES

This subject is designed to provide human relationships educators with insight into the effects and usefulness of interactive and cooperative teaching strategies, and experience with their implementation.
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 subject areas covered in the Graduate Diploma in Legal Practice and will have an applied law orientation. Examples of topics are: law and practice difficulties in staged resort development; analysis of judgement by default procedures and practices in the courts; jurisdictional issues and procedural difficulties in obtaining injunctive relief in the courts.
Credit Points: 48

LSB001 INTRODUCTORY BIOLOGY

A companion subject to BEB103 and BEB104, 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.
Credit Points: 6 **Contact Hours:** 3 per week

LSB100 MICROBIOLOGY 1

The subject acts as an introduction to the study of microbiology and biochemistry. The diversity of microbes is presented together with the various forms of microscopy used to study them. Important biological molecules, both inorganic and organic, are discussed with emphasis on the mode of action of enzymes and their role in energy production. A detailed study is made of the morphology of eukaryotic cells, prokaryotic cells and viruses.
Credit Points: 8 **Contact Hours:** 3 per week

LSB113 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.
Credit Points: 4 **Contact Hours:** 2 per week

LSB122 BIOLOGY 1

A core subject for major and submajor studies in biology. It consists of an integrated program of lectures and practical work dealing with structure and function of living organisms and systems.
Co-requisite: LSB100 or Senior Biology
Credit Points: 12 **Contact Hours:** 5 per week

LSB130 ANATOMY 1

An integrated course of lectures and practicals dealing with microscopic structure of the cell, epithelium, connective tissue, bone and cartilage, muscle tissue, nerve tissue, and cardiovascular system. Also deals with the gross anatomical of the skeletal, articular, and cardiovascular systems.
Credit Points: 8 **Contact Hours:** 3 per week

LSB141 ANATOMY & PHYSIOLOGY 1

A study of human anatomy of the body as a whole, including a detailed study of the skeletal system.
Credit Points: 10 **Contact Hours:** 4 per week

LSB151 HUMAN ANATOMY 1

An integrated course of lectures and practicals dealing with microscopic structure of the cell, epithelium, connective tissue, bone and cartilage, muscle tissue, nerve tissue, and cardiovascular system. Also deals with the gross anatomical of the skeletal, articular and cardiovascular systems.
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; patterns and mechanisms of inheritance; fundamental ecological principles.
Credit Points: 8 **Contact Hours:** 3 per week

LSB171 ANATOMY & PHYSIOLOGY 1

This subject introduces students to 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 are studied.
Credit Points: 12 **Contact Hours:** 4 per week

LSB181 ANATOMY

The general principles of anatomy; macroscopic and some microscopic and ultrastructures of the human body; introductory surface and regional anatomy in relation to systemic anatomy. This subject also focuses on the areas of anatomy relevant to nursing.
Credit Points: 8 **Contact Hours:** 3 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. (**Note:** This subject is not compatible with PNB116, or PNB758, or PNB340 + PNB540 + PND640, or PNB350 + PNB450 + PNB650.)
Prerequisite: PNB240
Credit Points: 8 **Contact Hours:** 3 per week

LSB210 QUANTITATIVE LABORATORY TECHNIQUES 2

A subject dealing with the theoretical and practical aspects of instrumental analysis in the clinical laboratory, and organisation and analysis of data. Topics include: glassware, plastics, balances, spectrophotometers, flamephoto-meters, auto-titrators, pH meters and specific ion meters. Programmable calculators and computers are used during the practical course to illustrate modern methods of data manipulation. Emphasis is placed throughout on the effective use of the instruments.
Credit Points: 12 **Contact Hours:** 5 per week

LSB221 INTRODUCTION TO PATHOLOGY

Application of scientific methods to the study of the general principles of disease processes and the major diseases of the organ systems. Correct understanding and use of pathological terms and concepts are emphasised.
Prerequisite: PNB125
Credit Points: 6 **Contact Hours:** 3 per week

LSB222 BIOLOGY 2

Macrobiology; populations of organisms, their interactions with each other, and their 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.

Credit Points: 12 **Contact Hours:** 5 per week

LSB230 ANATOMY 2

An extension of LSB130. A course dealing with the microscopic and macroscopic anatomy of the nervous, digestive, lymphatic, integumentary, respiratory, renal, endocrine and reproductive systems.

Prerequisite: LSB130

Credit Points: 8 **Contact Hours:** 3 per week

LSB232 CELL BIOLOGY

Introduction to cell structure and function in both eukaryote and prokaryote organisms; cell biology in relation to structure, function, systems, metabolism and differentiation in addition to basic molecular biology and genetic organisation; the molecular basis for genetic manipulation and other current advances based on molecular genetics.

Prerequisite: LSB122

Credit Points: 12 **Contact Hours:** 5 per week

LSB240 PHYSIOLOGY 2

Basic mechanisms: cells, fluids, electrolytes; energy metabolism; essential nutrients; transport mechanisms; blood; communication and control; excitable tissues. Control systems: nervous and endocrine systems.

Prerequisite: LSB130 for Med Lab Science students

Co-requisite: CHB282 or CHB242 for Med Lab Science students

Credit Points: 8 **Contact Hours:** 4 per week

LSB241 ANATOMY & PHYSIOLOGY 2

A course of lectures and practical exercises involving a basic, yet comprehensive, study of the anatomy and physiology of the various body systems.

Prerequisite: LSB141

Credit Points: 10 **Contact Hours:** 4 per week

LSB242 HUMAN ANATOMY & PHYSIOLOGY

An introduction to the anatomy and physiology of the human body for health professionals. Emphasis is placed on gaining an appreciation of the relationship between structure and function at the levels of cells, tissues, organs and organ systems. Related medical terminology is introduced. A brief study of pregnancy and human development is included.

Credit Points: 12 **Contact Hours:** 5 per week

LSB261 SYSTEMATIC ANATOMY

An extension of PUB161. A subject dealing with the microscopic and macroscopic anatomy of the nervous, digestive, lymphatic, integumentary, respiratory, renal, endocrine and reproductive systems.

Prerequisite: LSB161

Credit Points: 8 **Contact Hours:** 3 per week

LSB271 ANATOMY & PHYSIOLOGY 2

This subject follows on LSB171, integrating the study of structure and function of the human body. The systematic physiology of organs and organ systems continues with the study of the cardiovascular, lymphatic, immune, endocrine, respiratory, digestive, urinary and reproductive systems. Metabolism, nutrition and temperature regulation is reviewed. A brief study on pregnancy and human development is included.

Prerequisites: LSB171

Credit Points: 12 **Contact Hours:** 4 per week

LSB281 PHYSIOLOGY & PHARMACOLOGY

This subject considers the basic principles of normal body function and provides an introduction to pharmacology. (Note: This subject is not compatible with PNB115, or PNB240 or PND241.)

Credit Points: 8 **Contact Hours:** 3 per week

LSB300 MICROBIOLOGY 3

An introductory core subject in microbiology dealing with cytology, nutrition, genetics control of microbial populations and principles of taxonomy.

Prerequisite: LSB100 **Co-requisite:** LSB320

Credit Points: 8 **Contact Hours:** 4 per week

LSB301 MICROBIOLOGY 1

The classification and identification of micro-organisms: emphasis is on their microbiology and reproduction. Organisms dealt with include: the protozoa, helminths, fungi, bacteria and algae.

Credit Points: 8 **Contact Hours:** 3 per week

LSB302 ANIMAL BIOLOGY 1

This subject, together with LSB402, provides the foundation in animal biology that is essential for later specialist subjects in population studies and aquaculture. The subject deals with non-chordates and covers the following topics: taxonomy, systematics, nomenclature, classification, ultrastructure, life histories, structure and physiology, and evolutionary trends.

Credit Points: 12 **Contact Hours:** 5 per week

LSB305 BIOCHEMISTRY

The meaning and function of intermediary metabolism; nucleic acids; vitamins and coenzymes; bioenergetics; carbohydrate matabolism; biological oxidation; lipid metabolism; regulation of carbohydrates and lipid metabolism; amino acid metabolism.

Credit Points: 12 **Contact Hours:** 5 per week

LSB308 BIOCHEMISTRY 3

The structure and function of organic macromolecules. Topics include: the chemistry and function of proteins; enzymology; thermodynamics; energy production and utilisation; the structure, chemistry and function of carbohydrates and nucleic acids.

Prerequisites: LSB232, CHB222

Credit Points: 12 **Contact Hours:** 5 per week

LSB310 QUANTITATIVE LABORATORY TECHNOLOGY 3

The subject deals with techniques encountered in the clinical laboratory. Topics include: immunoassay, enzymic analysis, electrophoresis, isoelectric focusing, and chromatography, gel filtration, ion exchange, affinity, and high performance liquid chromatography. Emphasis is placed on the maintenance of accuracy, precision and quality control including statistical control in the clinical laboratory.

Prerequisite: LSB210

Credit Points: 8 **Contact Hours:** 4 per week

LSB312 MARINE STUDIES

A general overview of the 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 mankind's changing lifestyle.
Prerequisite: LSB122
Credit Points: 12 **Contact Hours:** 5 per week

LSB318 BIOCHEMICAL METHODOLOGY 3

A companion to LSB308 emphasising biochemical laboratory methods and practice and dealing with pH measurement and buffers, UV and visible spectrophotometry, chromatography, electrophoresis and isotope techniques.
Prerequisites: LSB232, MAB327
Co-requisite: LSB308
Credit Points: 12 **Contact Hours:** 5 per week

LSB321 SYSTEMATIC PATHOLOGY

Detailed study of the diseases of the organ systems: cardiovascular, respiratory, alimentary, urogenital, nervous musculoskeletal, endocrine, haematologic and skin.
Prerequisite: LSB221
Credit Points: 8 **Contact Hours:** 3 per week

LSB322 PLANT BIOLOGY

Plant biology provides a foundation in morphology, anatomy reproduction, taxonomy and identification in the plant kingdom. The subject includes a small practical project, and some emphasis is given to species of economic value. The content forms a basis for further study in plant tissue culture, physiology and ecology.
Prerequisite: LSB232
Credit Points: 12 **Contact Hours:** 5 per week

LSB328 MICROBIOLOGY 3

An introductory core subject of lectures and practical exercises in microbiology dealing with cytology, nutrition, genetics control of microbial populations and principles of taxonomy.
Prerequisite: LSB232 **Co-requisite:** LSB308
Credit Points: 12 **Contact Hours:** 5 per week

LSB330 INTRODUCTION TO BIOTECHNOLOGY

The basic aspects of molecular biology, genetic engineering and clinical applications of biotechnology. The subject includes: types and structures of DNA and RNA; the genetic code; DNA replication, transcription and translation; gene cloning techniques; vectors and hosts; DNA hybridisation and DNA probe techniques; clinical applications of technology.
Credit Points: 8 **Contact Hours:** 4 per week

LSB331 ADVANCED ANATOMY

On completion of this subject, students should be able to describe the structures, function and anatomical relationship of the components of the lower limb and demonstrate anatomical knowledge which are fundamental to the understanding of the functional and applied aspects of podiatric anatomy. This subject contains the major topics of osteology, myology, arthrology, angiology and neurology.
Prerequisite: LSB261 **Co-requisite:** PNB302
Credit Points: 8 **Contact Hours:** 3 per week

LSB332 PLANT PHYSIOLOGY 1

An introduction to whole plant physiology and the functional systems of plants. It is an important preparatory subject for students continuing their studies in the plant biotechnology and ecology areas.
Prerequisite: LSB232
Credit Points: 12 **Contact Hours:** 5 per week

LSB340 PHYSIOLOGY 3

Maintenance systems: gastrointestinal; cardiovascular; respiratory; and renal systems. Integrated mechanisms: sexual development; pregnancy; parturition; lactation; control of growth, energy intake, organic metabolism, body temperature, ECF osmolarity and volume, blood pressure and flow, respiration; response to tissue damage and foreign matter; adaptation to stress and exercise.
Prerequisite: LSB230 and LSB240 for students in Med Lab Science
Credit Points: 8 **Contact Hours:** 4 per week

LSB340 SCIENCE & SURVIVAL

Foundations of organic and biological chemistry including hydrocarbons, synthetic polymers, carbohydrates, proteins, nuclear acid and lipids. Industrial chemistry: metals and mining; industrial processing of raw materials for industry; consumer chemistry. Energy and its production, radiation, aspects of atmospheric physics, fission, fusion and nuclear radiation. Computers and solid state devices.
Prerequisite: MDB261
Credit Points: 12 **Contact Hours:** 3 per week

LSB341 BIOLOGY & TECHNOLOGY

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.
Prerequisite: LSB340
Credit Points: 12 **Contact Hours:** 3 per week

LSB341 REGIONAL & SECTIONAL ANATOMY

An expansion of the topics introduced in LSB141 and LSB241 to a detailed study of regional and sectional anatomy of the human body.
Prerequisite: LSB241
Credit Points: 8 **Contact Hours:** 4 per week

LSB351 HUMAN ANATOMY 3

An extension of LSB151. This integrated series of lectures and practicals covers basic embryology, structure and development of the eye, and gross and microscopic anatomy of the major organ systems of the human body.
Prerequisites: LSB151
Credit Points: 10 **Contact Hours:** 5 per week

LSB352 POPULATION ECOLOGY

A broad theoretical background in the major concepts of plant and animal ecology; introduction to a number of basic ecological models and modelling techniques; topics include: the ecology of single populations, life history and demography, interactions within and between populations, population regulation, management, behavioural ecology, energetics and biogeography.
Prerequisite: LSB222 **Co-requisite:** LSB362
Credit Points: 12 **Contact Hours:** 5 per week

LSB358 PHYSIOLOGY 2S

A course of lectures and practicals reviewing basic mechanisms: cells, fluids, electrolytes; energy metabolism; essential nutrients; transport mechanisms; blood; communication and control; excitable tissues; control systems: nervous and endocrine.
Prerequisite: LSB242
Credit Points: 12 **Contact Hours:** 5 per week

LSB361 FUNDAMENTALS OF MEDICINE 1

This subject provides students with the theoretical basis for an understanding of the process of medical care. These 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.
Prerequisite: LSB271
Credit Points: 12 **Contact Hours:**: 3 per week

LSB362 QUANTITATIVE METHODS IN LIFE SCIENCE

The emphasis in this subject is on practical considerations of field and laboratory-based experimentation in life science, and it provides experience in problem assessment, definition and formulation of testable hypotheses.
Prerequisite: MAB237 or MAB447
Credit Points: 12 **Contact Hours:** 5 per week

LSB400 MICROBIOLOGY 4

An extension of the core subject in Microbiology (LSB300), including aspects of microbial taxonomy, food and water microbiology, microbial ecology, industrial and agricultural microbiology, and the role of microorganisms as infectious agents.
Prerequisite: LSB300 or LSB491
Co-requisite: LSB481
Credit Points: 8 **Contact Hours:** 4 per week

LSB401 MICROBIOLOGY

An introductory core subject of lectures and practical exercises in microbiology dealing with cytology, nutrition, genetics, control of microbial populations, and principles of taxonomy.
Credit Points: 8 **Contact Hours:** 3 per week

LSB402 ANIMAL BIOLOGY 2

This subject, together with LSB302, provides the foundation in animal biology that is essential for later specialist subjects in population studies and aquaculture. The subject deals with chordates and covers the following topics: embryology, development, structure, physiology, classification and major evolutionary trends.
Prerequisite: LSB302
Credit Points: 12 **Contact Hours:** 5 per week

LSB405 MICROBIOLOGY

Scope of microbiology; characteristics of major microbial types; microbial metabolism; water; food and micro-organisms; principles of food presentation; spoilage of food; food-borne disease; food hygiene; microbial fermentation of foods; environmental and industrial microbiology.
Credit Points: 12 **Contact Hours:** 5 per week

LSB408 BIOCHEMISTRY 4

Aspects of carbohydrate metabolism in mammals, the chemistry and metabolism of lipids, amino acids, the chemistry and function of the nucleic acids, protein biosynthesis and molecular bases of genetic mutation.
Prerequisite: LSB308
Credit Points: 12 **Contact Hours:** 5 per week

LSB412 APPLIED ECOLOGY A

The theory and practice of methods used to determine and measure important population parameters and characteristics. The methods are an essential tool for the study of biological populations. Content includes estimation of population size, determination of dispersion patterns, detecting competition and measuring productivity. Applications of methods are demonstrated using laboratory and field exercises.
Prerequisite: LSB352
Credit Points: 12 **Contact Hours:** 5 per week

LSB418 BIOCHEMICAL METHODOLOGY 4

This subject extends studies of chromatographic and electrophoretic methods, protein binding techniques and the methodology of protein and nucleic analysis.
Prerequisite: LSB318 **Co-requisite:** LSB408
Credit Points: 12 **Contact Hours:** 5 per week

LSB421 IMAGING PATHOLOGY

A study of the appearances of pathology on medical images with particular emphasis on the radiographic image.
Prerequisite: LSB321
Credit Points: 4 **Contact Hours:** 2 per week

LSB422 APPLIED ECOLOGY B

The principle and concepts of plant community ecology and ecosystem structure. It includes a consideration of biogeochemical cycles, soils, nutrient cycling, vegetation classification and mapping, and techniques for characterising the physical environment. Field work is incorporated.
Credit Points: 12 **Contact Hours:** 5 per week

LSB428 MICROBIOLOGY 4

An extension of LSB328, includes aspects of microbial taxonomy, food and water microbiology, microbial ecology, industrial and agricultural microbiology and the role of micro-organisms as infectious agents.
Prerequisite: LSB328 **Co-requisite:** LSB408
Credit Points: 12 **Contact Hours:** 5 per week

LSB430 IMMUNOLOGY 4

A study of 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 and immunisation of man against infections.
Prerequisites: LSB306 and LSB300
Credit Points: 8 **Contact Hours:** 4 per week

LSB431 MICROBIOLOGY 2

This subject extends the principles covered in LSB301 and considers the classification and identification of micro-organisms, their infectious capability, host responses and the role of micro-organisms in nature and in industrial processes, the enumeration of micro-organisms, the control of microbial populations. The classification of viruses and their reproductive cycle are briefly considered.
Prerequisite: LSB301
Credit Points: 8 **Contact Hours:** 3 per week

LSB432 GENETICS

An introductory subject 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.
Prerequisite: LSB122
Credit Points: 12 **Contact Hours:** 5 per week

LSB438 IMMUNOLOGY 4

The mechanisms of the immune process including the nature of antigen, antibodies, antigen-antibody reactions, antibody formation, control of the humeral and cell-mediated immune responses, hypersensitivity

and allergy, and immunisation of man against infections.
Prerequisites: LSB328, LSB242
Credit Points: 12 **Contact Hours:** 5 per week

■ LSB441 IMAGING ANATOMY

A study of the appearances, on medical images, of normal and abnormal anatomy.
Credit Points: 8 **Contact Hours:** 4 per week

■ LSB442 PLANT TISSUE CULTURE 1

A broad introduction to most of the areas of plant tissue culture. After an introduction to techniques and media preparation leading to a coverage of micropropagation, the topics discussed include: organogenesis, embryogenesis, genetic variability, another culture and secondary metabolite production. Some emphasis is placed on the tissue culture of horticultural crops and a field excursion is included as part of the program.
Prerequisite: LSB332
Credit Points: 12 **Contact Hours:** 5 per week

■ LSB450 HAEMATOLOGY 4

In the first of the three haematology subjects the student is introduced to the theory of the origin, development and composition of normal blood. Laboratory tests, principles, techniques and interpretation used in the screening of blood samples are discussed in detail. Basic haematologic tests include: preparation, staining and examination of blood films, determination of the red cell indices, supravital staining, erythrocyte sedimentation rate, screening tests used in the investigation of a bleeding disorder.
Prerequisites: LSB310, LSB205, LSB306
Co-requisite: LSB408
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. The subject is presented as a one semester program.
Prerequisite: LSB351 or LSB261
Credit Points: 12 **Contact Hours:** 7 per week

■ LSB458 PHYSIOLOGY 3S

A continuation of LSB358.
Prerequisite: LSB358
Credit Points: 12 **Contact Hours:** 5 per week

■ LSB460 HISTOPATHOLOGY 4

An introductory subject presenting methods of preparing tissue samples for examination by the various methods of light and electron microscopy. Topics include: fixation, embedding, microtomy and an introduction to staining and microscopy techniques.
Co-requisites: PNB132, CHB242
Credit Points: 8 **Contact Hours:** 4 per week

■ LSB461 FUNDAMENTALS OF MEDICINE 2

This subject continues the study of the process of medical care begun in LSB361. In addition it includes the study of the roles and functions of allied health professions, and of technological services in the diagnosis and treatment of disease.
Prerequisite: LSB361
Credit Points: 12 **Contact Hours:** 3 per week

■ LSB470 DISEASE PROCESSES 4

The 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. It 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.
Prerequisite: LSB105 **Co-requisite:** LSB306
Credit Points: 4 **Contact Hours:** 2 per week

■ LSB485 AUSTRALIAN BIOLOGY

The geological and climatic history of the Australian continent, the history of Australian ecosystems and the evolution of the Australian flora and fauna. Major groups of extant plants and animals are examined in some detail. While emphasis is placed on vertebrate animals, invertebrates of particular relevance because of their abundance, scientific interest or economic importance are discussed. The structure of selected plant communities and their social and economic relevance are examined.
Credit Points: 12 **Contact Hours:** 3 per week

■ LSB491 MICROBIOLOGY 3

An introductory core subject microbiology for students of optometry dealing with cytology, nutrition, genetics, control of microbial populations and principles of taxonomy.
Credit Points: 6 **Contact Hours:** 3 per week

■ LSB500 MICROBIOLOGY 5

A study of parasitology (85 semester hours) directed towards the laboratory diagnosis of parasitic disease in man. It consists of a systematic study of identification, life history, incidence, modes of infection, epidemiology and control of the parasites of man. Emphasis is placed on parasites evident in Australia and on those most likely to penetrate the quarantine barrier. A study of clinical mycology (20 semester hours) including characterisation of fungi responsible for systemic and superficial infections in man.
Prerequisite: LSB400
Credit Points: 16 **Contact Hours:** 7 per week

■ LSB508 BIOCHEMISTRY 5

The catabolic and anabolic pathways for the major macromolecules in mammalian systems; important aspects of non-mammalian metabolism; advanced 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.
Prerequisite: LSB408
Credit Points: 12 **Contact Hours:** 5 per week

■ LSB520 CLINICAL BIOCHEMISTRY 5

This subject 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.
Prerequisites: LSB408, LSB310, LSB306
Co-requisite: MAB252
Credit Points: 8 **Contact Hours:** 4 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; cells, populations and the kinetics of growth; biosynthesis of cellular materials; regulation of metabolism; microbial genetics; sporogenesis and germination.
Prerequisite: LSB428
Credit Points: 12 **Contact Hours:** 5 per week

LSB530 IMMUNOLOGY 5
This subject 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.
Prerequisites: LSB430, LSB408, LSB400
Credit Points: 8 **Contact Hours:** 4 per week

LSB538 MOLECULAR BIOLOGY
An introductory subject of lectures and practical exercises in molecular biology including types and structures of DNA and RNA, the genetic code and protein synthesis; DNA replication, repair and mutability; transcription and translation; gene structure, function and expression in prokaryotes and eukaryotes; transferable DNA including plasmids, bacteriophage and transposable elements.
Prerequisites: LSB408, LSB428
Credit Points: 12 **Contact Hours:** 5 per week

LSB548 BIOCHEMICAL SEPARATIONS
An advanced course of lectures and a comprehensive project designed to integrate a number of specialist biochemical procedures including centrifugation, chromatography, electrophoresis and spectrophotometry. Students are required to design and execute an experimental protocol for the separation of selected macromolecules.
Prerequisite: LSB318 **Co-requisite:** LSB508
Credit Points: 12 **Contact Hours:** 5 per week

LSB550 HAEMATOLOGY 5
The first of two subjects in which the student is introduced to the diseases of the blood. Each blood disease is considered under the following headings: cause, laboratory investigation, prognosis, principles of treatment and laboratory monitoring of treatment. The blood disorders discussed in this subject include: bleeding disorders, iron deficiency anaemia, anaemia of chronic disease, macrocytic academia and pancytopenia.
Prerequisites: LSB450, LSB310, LSB408, LSB306
Credit Points: 8 **Contact Hours:** 4 per week

LSB558 APPLIED PHYSIOLOGY
The links between normal and abnormal food intake and normal and abnormal physiological functions in the human body; the role of nutrition in the physiology of the cardiovascular, renal, gastrointestinal and nervous systems.
Prerequisites: LSB358, LSB458
Credit Points: 12 **Contact Hours:** 5 per week

LSB560 HISTOPATHOLOGY 5
A detailed study of techniques used in routine histopathology including methods for immunohisto-chemistry and transmission electron microscopy. Emphasis is placed on the application and relevance of methods to particular diagnostic areas.
Prerequisites: LSB460, LSB408, LSB306, LSB510, LSB205
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 covered and the analytical capabilities of electron beam instruments.
Credit Points: 12 **Contact Hours:** 5 per week

LSB571 BIOCHEMISTRY 4
Introduction to the structures and functions of proteins, carbohydrates, lipids and nucleic acids, basic enzymology, mechanisms of cellular energy production and the role of ATP, an outline of the metabolism of carbohydrates, lipids and amino acids and the fundamentals of protein biosynthesis and molecular biology.
Prerequisite: CHB242
Credit Points: 8 **Contact Hours:** 4 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.
Prerequisite: LSB400
Credit Points: 16 **Contact Hours:** 7 per week

LSB608 BIOCHEMISTRY 6
Advanced studies in protein biochemistry, including structure, analysis and evolution of proteins, and their special properties; applications in the areas of enzymology and membrane biochemistry.
Prerequisites: LSB418, LSB408
Credit Points: 12 **Contact Hours:** 5 per week

LSB618 ANALYTICAL BIOCHEMISTRY 6
A companion subject to LSB608 which extends the material of LSB418 into biochemical analysis. This subject treats enzyme-based analyses, advanced analysis using isotopes, immunoassays and specific methods for the major biomolecules.
Prerequisite: LSB418 **Co-requisite:** LSB608
Credit Points: 12 **Contact Hours:** 5 per week

LSB620 CLINICAL BIOCHEMISTRY 6
This subject further develops 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.
Prerequisite: LSB520
Credit Points: 8 **Contact Hours:** 4 per week

LSB622 CASE STUDIES
Application of skills and techniques to examine a current research problem in ecology. Skills in problem appraisal, experimental design and data handling and processing are developed, with appropriate field work.
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, foodborne 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 and soil

microbiology, preservation of cultures and cell lines, bacterial systematics and nomenclature.
Prerequisite: LSB528
Credit Points: 12 **Contact Hours:** 5 per week

LSB630 IMMUNOHAEMATOLOGY 6

This subject is 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.
Prerequisite: LSB530
Credit Points: 8 **Contact Hours:** 4 per week

LSB638 GENETIC ENGINEERING

Introduction to techniques integral to genetic engineering; students are compelled to develop laboratory competence in the use of radioisotopes and gene probes for the labelling, hybridisation and detection of nucleic acids. Topics include: strategies for gene isolation and cloning, gene expression, animal and plant transgenics and applications of genetic engineering in vaccine research, disease diagnosis and gene therapy.
Prerequisite: LSB538
Credit Points: 12 **Contact Hours:** 5 per week

LSB642 PLANT TISSUE CULTURE 2

Cellular and biochemical aspects of plant growth are integrated with standard plant tissue culture practice in this subject. Theories and techniques of modern plant biotechnology are introduced, including cytogenetics, protoplast isolation, and the unusual carbohydrate metabolism of plants in tissue culture.
Prerequisite: LSB342
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; membrane filtration; product recovery; biochemical engineering; production of immunising agents and diagnostic reagents; primary and secondary metabolites of industrial importance; single cell protein; microbial transformations; biodeterioration and bioleaching.
Prerequisite: LSB528
Credit Points: 12 **Contact Hours:** 5 per week

LSB650 HAEMATOLOGY 6

This subject continues the study of blood diseases. Topics include: haemolytic anaemia, leukaemia and related diseases, paediatric haematology, blood disorders in the elderly and veterinary haematology.
Prerequisite: LSB550
Credit Points: 8 **Contact Hours:** 4 per week

LSB658 CLINICAL PHYSIOLOGY

This subject aims to develop in the student an appreciation of the physiological basis of the pathogenesis, clinical features and treatment of the major disorders of the cardiovascular, respiratory, haematological, renal, gastrointestinal and endocrine systems. In addition, students are introduced to topics of particular interest to those wishing to pursue a career in nutrition and dietetics, such as chemical carcinogenesis, nutrition in cancer patients, and the metabolic response to stress.
Prerequisites: LSB358, LSB458
Credit Points: 12 **Contact Hours:** 5 per week

LSB660 HISTOPATHOLOGY 6

The subject reviews recent advances in diagnostic histopathology and introduces advanced and specialised methods including scanning electron microscopy and X-ray microanalysis. A major component is an overview of techniques for diagnostic cytology concentrating on specimen preparation and the microscopic detection of cancerous and other abnormal cells in human tissues and body fluids.
Prerequisite: LSB560
Credit Points: 8 **Contact Hours:** 4 per week

LSB700 PROJECT – BIOLOGY

All students undertaking Honours are required to select and undertake, in consultation with a supervisor, a substantial project in an appropriate area. Each project will be assessed on the basis of an extensive written report and an oral presentation.
Credit Points: 40

LSB722 RESEARCH STRATEGIES 1

A series of seminars presented by staff of the Faculties of Health and Science and other research scientists on research strategies and directions in their area of expertise. A series of tutorials and lectures on such topics as library searches, oral communications, written communications and ethics. Several written assignments 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.
Credit Points: 8 **Contact Hours:** 3 per week

LSB723 READINGS IN LIFE SCIENCE 1

This subject consists of the preparation of a literature review of direct and associated relevance to LSB725. The literature review, under the guidance of the supervisor(s), includes an indepth 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.
Credit Points: 25 **Contact Hours:** 1 per week

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.
Credit Points: 10

LSB732 BIOCHEMICAL SEPARATIONS

An advanced course of lectures and a comprehensive project designed to integrate a number of specialist biochemical procedures including centrifugation, chromatography, electrophoresis and spectrophotometry. Students are required to design and execute an experimental protocol for the separation of selected macromolecules.
Prerequisite: LSB318 **Co-requisite:** LSB508
Credit Points: 10 **Contact Hours:** 5 per week

LSB734 ANALYTICAL ELECTRON MICROSCOPY

An advanced course in electron microscopy with emphasis on the applications of labelling and analytical techniques. Methods covered in lectures and practical sessions 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.
Credit Points: 10 **Contact Hours:** 5 per week

LSB736 ADVANCED GENETIC ENGINEERING

The isolation of mRNA and DS viral RNA; DNA analysis using Restriction Fragment Length Polymorphisms (RFLPs) and nucleotide sequence determination in plasmids and bacteriophage M13; separation of chromosomes using Pulsed Field Gel Electrophoresis (PFGE); oligonucleotide synthesis and the application of gene probes in diagnosis; electroporation and chemical transformation of cells; and DNA amplification using the Polymerase Chain Reaction (PCR).
Credit Points: 10 **Contact Hours:** 5 per week

LSB738 MOLECULAR BIOLOGY

Introduction to molecular biology including types and structures of DNA and RNA, the genetic code and protein synthesis; DNA replication, repair and mutability; transcription and translation; gene structure, function and expression in prokaryotes and eukaryotes; transferable DNA including plasmids, bacteriophage and transposable elements.
Prerequisites: LSB408, LSB428
Credit Points: 10 **Contact Hours:** 5 per week

LSB750 ADVANCED AQUACULTURE

The biological physiological and economic basis for the selection and use of species in aquaculture; topics include: nutritional requirements of cultured species; reproductive physiology; genetic manipulation of sex; the efficacy and safety of genetic engineering; the efficacy and safety of the use growth promoters and antimicrobial agents; genetic methods of stock assessment; high technology culture; subsistence culture in developing counties.
Credit Points: 10 **Contact Hours:** 5 per week

LSB801 ADVANCED PLANT PHYSIOLOGY & BIOCHEMISTRY

Aspects of plant physiology and biochemistry of current research interest are covered, expanding upon material in the third year Plant Biochemistry subject. Students select from a reading list, present seminars and undertake advanced practical work.
Credit Points: 9 **Contact Hours:** 4 per week

LSB803 DATA HANDLING, INTERPRETATION & BIOMETRICS

The efficient organisation and manipulation of data using techniques available through personal computer software. Data manipulation programs are developed to facilitate the application of commercial software to the analysis and interpretation of experimental data.
Credit Points: 9 **Contact Hours:** 4 per week

LSB804 ADVANCED STUDIES IN POPULATION MANAGEMENT

Topics include: pest control and economics; chemical pesticides and their uses; biological control agents; autocidal control and genetic control; use of pheromones, attractants and repellents; resistant varieties, cultural and ecological control; physical methods of control; integrative pest management; quarantine. Conservation management; national parks and protected areas management; legislation.
Credit Points: 9 **Contact Hours:** 4 per week

LSB805 MOLECULAR DIAGNOSIS OF DISEASE

Advanced molecular techniques of disease diagnosis; collection and preparation of samples; the use of DNA probes in dot bots, southern blots and northern blots, RFLP analysis and DNA fingerprinting; advanced immunological techniques such as Elisa and western blotting.
Credit Points: 10 **Contact Hours:** 5 per week

LSB822 RESEARCH STRATEGIES 2

Regular student presentations and group discussion of research progress; lectures and tutorials on highly relevant research topics, eg. computer data analysis, grant applications, photography for scientists, etc.; research seminars given by staff and other scientists in their fields of expertise. Students are required to present to the School a formal seminar on the results of their research project.
Credit Points: 8 **Contact Hours:** 3 per week

LSB823 READINGS IN LIFE SCIENCE 2

The preparation of a paper reporting the methods and results of investigations in LSB725. 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. In the course of this subject students should relate their project work to published work already undertaken in the relevant field.
Credit Points: 25 **Contact Hours:** 1 per week

LSB835 GENETIC ENGINEERING

Introduction to the techniques in genetic engineering including the enzymes, the vectors and hosts, gene isolation and detection of recombinant genes; strategies of gene cloning, genomic and DNA libraries and gene identification; and applications of genetic engineering.
Prerequisite: LSB738 or LSB538
Credit Points: 10 **Contact Hours:** 5 per week

LSB845 ANALYTICAL BIOCHEMISTRY

A companion subject to LSB608 which extends the subject matter of LSB418 into biochemical analysis. This subject treats enzyme-based analyses, advanced analysis using isotopes, immunoassays and specific methods for the major biomolecules.
Prerequisite: LSB418 **Co-requisite:** LSB608
Credit Points: 10 **Contact Hours:** 5 per week

LSB980 ENVIRONMENTAL MONITORING

The skills of environmental measurement concerning ecosystems. The lectures are supported by field work in several environments using a range of instrumentation to delineate environmental profiles.
Credit Points: 8 **Contact Hours:** 3 per week

LSB981 FIELD STUDIES 2

A field-based subject in which students use the background information gained in BEB357 and BEB444 to sample aquatic populations. This subject may include extended field trips.
Credit Points: 8 **Contact Hours:** 3 per week

LSB982 SELECTED TOPICS 1

Students complete a study on a specific topic. Such study involves selected reference material and may also include a lecture program or project work.
Credit Points: 8 **Contact Hours:** 3 per week

LSB983 POPULATION GENETICS

This subject is an extension of Introductory Genetics and examines in detail the genetics of populations. 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 relevant practical or theoretical problems.
Credit Points: 8 **Contact Hours:** 3 per week

LSB984 PROJECTS 1
This subject develops the student's capacity for managing their own work and for persistence within a circumscribed subject area. Projects emphasise specific investigatory skills in reviewing, collating, interpreting and presenting data; contribution to a seminar is usually required. Projects, supervised by various staff members, are graded individually. The Head of School coordinates assessment, and may request external assessment. Projects are to be selected by the 12th week of the fourth semester of the course. There are a number of compulsory field trips. This subject normally leads into LSB990.
Credit Points: 16 **Contact Hours:** 6 per week

LSB985 BIOLOGICAL RESOURCES
A conceptual basis for aspects of ecosystem management related to naturally occurring materials and ecosystems subject to interactive use within the economy. Limitations on specific exploitation of natural resources are identified and linked with relevant aspects of land tenure, administration and law. Strategies leading to sustained yield and conservation are contrasted with those resulting in resource degradation.
Credit Points: 8 **Contact Hours:** 3 per week

LSB986 AQUACULTURE 2
The theoretical and applied aspects of warm-water aquaculture. Topics include: the design and operation of production facilities; water quality requirements and management; the biology of commercially important species; reproduction and its control; nutrition, feeding and growth; diseases and their control; methods of production improvement; polyculture; case studies.
Credit Points: 8 **Contact Hours:** 3 per week

LSB987 SELECTED TOPICS 2
As a final semester subject, provides students with an opportunity to complete a detailed study on a specific topic. The study normally is based on project work and may include a lecture program.
Credit Points: 8 **Contact Hours:** 3 per week

LSB988 PLANT PHYSIOLOGY 2
Lectures are designed to follow the sequence of biochemical 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, eg. 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.
Credit Points: 8 **Contact Hours:** 3 per week

LSB989 POPULATION MANAGEMENT
The principles of biological population management; subject deals with natural populations and three forms of management: pest control, harvesting, and conservation. Field trips and computer simulations are used to investigate management methods.
Credit Points: 8 **Contact Hours:** 3 per week

LSB990 PROJECTS 2
This elective subject may be undertaken by students who have taken LSB984 and who have the Head of School's permission to continue project work. The student either: continues a project undertaken in LSB984, or involves one or more additional projects aimed at developing to a greater depth aspects of the subject matter of experimental subjects previously completed, such projects being established for either individuals or groups. Assessment is conducted as for LSB984. Individual programs for LSB990 are to be determined by the 12th week of the fifth semester of the course. There are a number of excursions.
Credit Points: 16 **Contact Hours:** 6 per week

LSB991 HYDROBIOLOGY & AQUACULTURE
Aquatic biology and aquatic ecosystem management with particular reference to aquatic farming; water quality measurement; criteria and management; nutrient cycles; the composition and biology of aquatic communities; primary and secondary productivity and their control; trophic relationships and energy flow.
Credit Points: 8 **Contact Hours:** 3 per week

LSB992 VIROLOGY 5
Lectures and laboratory exercises dealing with the nature of viruses; viral replication; viral transmission; viral diseases of humans, animals and plants and their diagnosis; virus purification and assay.
Credit Points: 8 **Contact Hours:** 3 per week

LSN102 CELLULAR BASIS OF DISEASE
Cell injury and stress mechanisms. Cellular communication. The responses of organelles, cells and tissues to injury and stress including the following: immune, inflammation, thrombosis, ageing and neoplastic responses. Transplantation and regeneration.
Prerequisite: 24 credit points in Master of Health Science
Credit Points: 12 **Contact Hours:** 3 per week

LSN110 MOLECULAR BASIS OF DISEASE
This subject provides an understanding at the molecular level, of the aetiology, diagnosis and treatment of various diseases, by a study of molecular structures, biochemical reactions, and the 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.
Prerequisite: 24 credit points in Master of Health Science
Credit Points: 12 **Contact Hours:** 3 per week

LSN116 HUMAN FACTORS
Introduction to the human factors in occupational health and safety. Basic human anatomy and physiology are reviewed prior to a discussion of how the physico-chemical environment of the workplace can impinge on normal physiological function. The psychology of humans in the work environment is discussed with consideration of attitudes towards health and safety. The use of ergonomics, anthropometry and biomechanics in the design of safer workplaces will be reviewed.
Credit Points: 12 **Contact Hours:** 3 per week

LSN150 EPIDEMIOLOGY & RESEARCH STRATEGIES

An introduction to the principles and applications of epidemiology with emphasis given to its scope and value in establishing disease aetiology. Topics include: epidemiological methods (descriptive, analytical and experimental), epidemiological concepts, causal relationships, measurement of morbidity and mortality statistical overview of the health of the Australian population, and the investigation of an epidemic.

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

LSN158 ULTRASONIC PATHOLOGY

Pathology as applicable to diagnostic ultrasound; basic embryology and genetics.

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

LSN161 ANATOMY & PHYSIOLOGY 1

A study of basic functional anatomy covering cells, tissues, and the organ systems of the human body. The lectures and practical work are integrated and emphasise the relationships between structure and function.

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

LSN165 ANATOMY & PHYSIOLOGY 2

A study of the mechanisms and controls of body functions. Stress is placed on fundamental principles and the practical work serves to illustrate these principles, as well as providing experience in physiological recording and investigative techniques.

Credit Points: 8 **Contact Hours:** 3 per week

LSN306 PATHOPHYSIOLOGY

A study of selected pathophysiological states which represent major alteration in physiological functioning, occurring in each developmental phase.

Prerequisite: 72 credit points in Master of Health Science

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

LSN401 ADVANCES IN MEDICAL LABORATORY SCIENCE

A series of lectures to provide current and topical information across the general field of medical laboratory science. In addition, topics which have significant implications on the advancement of the profession are presented, eg. computers, laboratory automation, biotechnology, self-diagnosis. The lecture program is flexible to allow for the incorporation of visiting speakers or for the introduction of a current interest topic. In addition to formal lectures the subject offers tutorial and student seminar sessions.

Prerequisite: 72 credit points in Master of Health Science

Credit Points: 12 **Contact Hours:** 3 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 hepa-tobiliary 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.

Prerequisite: 96 credit points in Master of Health Science

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. Topics are chosen from the following areas: haemopoeitic kinetics, haematologic oncology, haemolytic disease, haemostasis and the haematologic manipulations of systemic disease. Assessment is by formal examination, assignments and seminar participation.

Prerequisite: 96 credit points in Master of Health Science

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

LSN512 HISTOPATHOLOGY 1

An indepth review of recent advances and modern methods in diagnostic histopathology. Major topics include: immunohistochemistry, enzyme histochemistry and transmission electron microscopy methods.

Prerequisite: 96 credit points in Master of Health Science

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 microorganisms 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 will be developed.

Prerequisite: 96 credit points in Master of Health Science.

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

LSN517 IMMUNOLOGY 1

Exposure to information retrieval systems and practise in scientific writing. Five essay topics are selected following discussion with students, supervisor/employer.

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.

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

LSN530 DISSERTATION

The dissertation includes a supervised project in an approved topic 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.

Prerequisite: 96 credit points in Master of Health Science.

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

LSN610 CLINICAL BIOCHEMISTRY 2

The use of clinical biochemistry in the diagnosis of diseases. Endocrinology, disorders of the muscular and skeletal systems, disorders of special groups, nutrition and drugs, neutrochemistry and neural disorders, cancer-associated biochemical abnormalities, and the seriously ill patients are studied, concentrating on diagnosis and the interpretation of biochemical results.

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, the role of the forensic laboratory, transplantation, automation and quality control. Since outside lecturers participate in these specialist electives some interchange of topics between this subject and LSN511 may be necessary.
Prerequisite: LSN511
Credit Points: 12 **Contact Hours:** 3 per week

LSN612 HISTOPATHOLOGY 2

Investigation of methods in diagnostic histopathology. The design and assessment of diagnostic programs to aid the identification of tumours and diseases of selected organ systems. A study of specialised techniques including aspiration cytology, scanning electron microscopy and analytical electron microscope methods.
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.
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.
Prerequisite: LSN517
Credit Points: 12 **Contact Hours:** 3 per week

LSN618 DIAGNOSTIC CYTOLOGY 2

Exploration of recent advances, modern methods and their applications in diagnostic cytology of various body sites. Topics include: respiratory and urinary tract, body fluids and specialised techniques such as fine needle aspiration.
Prerequisite: LSN518
Credit Points: 12 **Contact Hours:** 3 per week

LSP105 MOLECULAR DIAGNOSIS OF DISEASE

This subject consists of a series of lectures and laboratory exercises in advanced molecular techniques of disease diagnosis; the collection and preparation of samples; the use of DNA probes in dot blots, southern blots and northern blots, RFLP analysis and DNA fingerprinting; advanced immunological techniques such as Elisa and western blotting.
Credit Points: 12 **Contact Hours:** 5 per week

LSP120 ADVANCED GENETIC ENGINEERING

The isolation of mRNA and DS viral RNA; DNA analysis using Restriction Fragment Length Polymorphisms (RFLPs) and nucleotide sequence determination in plasmids and bacteriophage M13; separation of chromosomes using Pulsed Field Gel Electrophoresis (PFGE); oligonucleotide synthesis and the application of gene probes in diagnosis; electroporation and chemical transformation of cells; and DNA amplification using the Polymerase Chain Reaction (PCR).
Credit Points: 12 **Contact Hours:** 5 per week

LSP127 TOPICS IN BIOTECHNOLOGY

Commercial perspectives of a biotechnology company; funding for commercial research; research strategies in biotechnology; methods of reviewing the biotechnology literature; DNA and protein sequence data banks. Students are also required to present a seminar on some aspect of biotechnology research.
Credit Points: 12 **Contact Hours:** 5 per week

LSP145 PROJECT

All students undertaking the Graduate Diploma in Biotechnology are required to select, in consultation with their employer and an academic supervisor, a suitable research project. The aims of the project are that students, under supervision, should participate in the selection of a suitable topic for investigation; conduct a literature search in the subject area; plan an experimental program which includes scheduling laboratory space, equipment and consumables; undertake work at the bench; record, assess and interpret the results; write a concise thesis in a standard form of presentation.
Credit Points: 12 **Contact Hours:** 3 per week

LSP512 INTRODUCTION TO PLANT SCIENCE

Consideration of plants as living organisms; survey of the plant kingdom emphasising revolutionary trends; complexity of organisation and integration of structural elements; evolution of specialised organs such as leaves, roots, flowers, and propagules; consideration of plant systematics and taxonomy as scientific approaches to coping with diversity, the concept of classification, and the development and use of keys for identification. Values and use of numerical classification techniques are introduced; an introduction to physiological processes: photosynthesis and respiration, responses to light, temperature, nutrients, water balance and stress, nutrient and mineral deficiencies, and diseases and pathogens.
Credit Points: 4 **Contact Hours:** 2 per week

LSX110 INTRODUCTORY BIOLOGY

An introduction to the classification of organisms. Examination of the morphology, anatomy, reproduction, life-history and physiology of selected species.
Credit Points: 8 **Contact Hours:** 3 per week

LSX111 MICROSCOPY TECHNIQUES

The use and roles of various types of optical microscopes; microscope accessories for counting, measuring, drawing and photography; procedures for preparing specimens for examination and histological/histochemical study.
Credit Points: 8 **Contact Hours:** 3 per week

LSX121 BIOLOGICAL CHEMISTRY 1

An introduction to the basic chemistry of biological systems and the biochemistry of major groups of biologically important compounds. Topics include: solution chemistry, biochemistry of amino acids, proteins, fats and sugars; basic aspects of enzyme chemistry; nucleic acids and protein synthesis.
Credit Points: 8 **Contact Hours:** 4 per week

LSX122 LABORATORY INSTRUMENTATION 1

The principles, care and effective usage of basic laboratory equipment including glassware, plastics, balances, spectrophotometers, flamephorometers,

autotitrators, pH meters and specific ion meters. Programmable calculators and computers are used during the practical course to illustrate modern methods of data manipulation. In addition the practical course aims to provide experience in the handling of chemicals, and in the preparation of reagents and standards. In this work emphasis is placed on aspects of laboratory safety.
Co-requisite: LSX111
Credit Points: 8 **Contact Hours:** 4 per week

LSX123 MICROBIOLOGY 1
An introduction to the biology of bacteria, fungi, algae, protozoa and viruses, with consideration of structure, nutrition, reproduction, genetics, and classification systems. The practical course is aimed at developing the manipulative skills necessary for laboratory identification of microbial forms.
Credit Points: 8 **Contact Hours:** 3 per week

LSX124 PERSPECTIVES IN MEDICINE
A general introduction to the health care area; topics include: health in the Australian society, workplace safety, the function of various types of laboratories in hospitals, country pathology services, clinical measurement and research. Related topics such as the role of various laboratory personnel and the structure of health care services are discussed.
Credit Points: 4 **Contact Hours:** 1 per week

LSX125 ANATOMY & PHYSIOLOGY 1
An integrated study of anatomy and physiology. Emphasis is placed on gaining an appreciation of the relationship between structure and function at the levels of cells and tissues, organ and organ systems. Initially the morphology and physiology of cells and tissues are examined and then the structure and function of the skeletal, muscular, nervous and integumentary systems are studied.
Credit Points: 8 **Contact Hours:** 3 per week

LSX210 BIOLOGY B
This subject extends the basic concepts presented in Introductory Biology and also includes aspects of mendelian genetics, gene expression and cell differentiation, as well as reproduction and development in selected animals and plants.
Prerequisite: BEA108
Credit Points: 8 **Contact Hours:** 3 per week

LSX211 CELL STRUCTURE & FUNCTION
A general course in cell biology including the living cell and its processes, structure and function. Photosynthesis, respiration, intermediary metabolism are emphasised.
Credit Points: 8 **Contact Hours:** 3 per week

LSX212 BIOLOGICAL DATA HANDLING
Application of statistical procedures to surveys, sampling and design of experiments. Recognition of problems arising from variability in results and particular data type. Methods of data collection, checking, analysis and presentation are discussed. An introduction to the use of computer software packages is included.
Prerequisite: MAA251
Credit Points: 8 **Contact Hours:** 3 per week

LSX213 INTRODUCTORY BIOCHEMISTRY
Molecular aspects of cellular structure and organisation. Nomenclature and basic chemistry of simple biological molecules. Amino acids and proteins: fibrous and globular proteins; enzymes and factors affecting their activity. Structure, function and reactions of carbohydrates and lipids and their role as structural components and metabolites. Nucleic acids in cell growth and syntheses. Cell dynamics and analytical methods.
Credit Points: 8 **Contact Hours:** 3 per week

LSX221 BIOLOGICAL CHEMISTRY 2
Basic metabolism; topics include: biological catalysis; energetic of biological systems; catabolic and anabolic pathways for the metabolism of carbohydrates, lipids, amino acids and nucleic acids; metabolic control and integration.
Prerequisites: LSX121, LSX122
Credit Points: 8 **Contact Hours:** 4 per week

LSX222 LABORATORY INSTRUMENTATION 2
Lectures and practical work designed to integrate the principles and techniques of macro-molecule separation by a variety of chromatographic procedures and various methods of electrophoresis, dialysis, filtration and centrifiguration.
Prerequisite: LSX122
Credit Points: 8 **Contact Hours:** 4 per week

LSX223 MICROBIOLOGY 2
The growth of microbial populations and methods of controlling growth; sterilisation and disinfection methods; enzymic activity of microorganisms; the identification of the micro-organisms relevant to public health; host-parasite relationships and an introduction to immunity.
Prerequisite: LSX123
Credit Points: 8 **Contact Hours:** 3 per week

LSX224 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 are emphasised.
Credit Points: 8 **Contact Hours:** 2 per week

LSX225 ANATOMY & PHYSIOLOGY 2
The broad objectives outlined LSX125 are continued; the relationships between structure and function at the level of organs and systems; the cardiovascular, lymphatic, respiratory, digestive, urinary, reproductive, and endocrine systems.
Prerequisite: LSX125 **Co-requisite:** LSX222
Credit Points: 8 **Contact Hours:** 3 per week

LSX310 INTRODUCTION TO BIOCULTURE
This subject introduces students to 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. This subject provides the theoretical basis for students undertaking electives in aquaculture techniques and/or plant tissue culture.
Credit Points: 8 **Contact Hours:** 3 per week

LSX311 COMPUTER APPLICATIONS IN BIOLOGY
An introduction to microcomputers and applications-software such as wordprocessing, databases, spreadsheets, and computer graphics for report presentation. This subject is not oriented towards any specific computer language.
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 the maintenance of such collections.

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 nomenclatural procedure are introduced in short lectures and tutorials associated with the practical exercises.

Credit Points: 8 **Contact Hours:** 3 per week

LSX314 AQUACULTURE TECHNIQUES

Topics include: water quality monitoring; culture methods for microscopic food organisms; disease and parasite identification and treatment; techniques associated with spawning, rearing, handling and stock assessment.

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.

Prerequisite: BEA108

Credit Points: 8 **Contact Hours:** 3 per week

LSX316 HYDROBIOLOGICAL TECHNIQUES

An introduction to the characteristics of aquatic ecosystems. Students gain practical experience using methods, equipment and instrumentation to: estimate population abundance, distribution, biomass and productivity; determine community structure and diversity; determine physical characteristics and morphology and assess water quality. Compulsory field studies form a significant part of this subject.

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, hepatic and gastric functions, and the estimation of serum proteins and lipids.

Prerequisites: LSX221, 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.

Prerequisite: LSX2232

Credit Points: 8 **Contact Hours:** 4 per week

LSX322 HAEMATOLOGICAL TECHNIQUES 3

Lectures and associated practical work in basic 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.

Prerequisites: LSX125, LSX225

Credit Points: 8 **Contact Hours:** 4 per week

LSX323 HISTOLOGICAL TECHNIQUES 3

Methods of 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.

Prerequisites: LSX125, LSX225, LSX122

Credit Points: 8 **Contact Hours:** 4 per week

LSX324 IMMUNOLOGICAL TECHNIQUES 3

An introduction to immunology with particular emphasis on the principle and performance of basic immunological techniques including blood grouping. Topics include: antigens, antibodies and the immune system.

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. This provides a basis for the study of clinical cytology offered in LSX425.

Prerequisites: LSX221, LSX125, 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.

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.

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 spreadsheet.

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.

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 form an integral part of the subject.

Credit Points: 8 **Contact Hours:** 3 per week

LSX411 POPULATION BIOLOGY

Population biology including: structure and dynamics of populations, evolution and differentiation in populations; the relationships between the genetics, energetics and dynamics of populations leading to

particular life-history strategies. Field excursions are a compulsory part of the subject.
Co-requisite: 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 subject.
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 presents an introduction to the basic techniques and their limitations.
Prerequisites: BEA108, BEA198
Credit Points: 8 **Contact Hours:** 3 per week

LSX414 ANIMAL PHYSIOLOGY

The general physiological processes which sustain life and an understanding of animal-environment interactions.
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 are discussed. The lecture program is supported by appropriate laboratory exercises.
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.
Prerequisite: LSX320
Credit Points: 8 **Contact Hours:** 4 per week

LSX421 CLINICAL MICROBIOLOGICAL TECHNIQUES 4

Basic microbiological techniques in the following disciplines: virology, mycology and parasitology (enteric parasites). The practical periods are used to reinforce the theoretical aspects of the subject.
Prerequisite: LSX223
Credit Points: 8 **Contact Hours:** 4 per week

LSX422 HAEMATOLOGICAL TECHNIQUES 4

This subject is an extension of LSX322. The student is introduced to the common blood disorders. A brief outline of their courses 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.
Prerequisite: LSX322
Credit Points: 8 **Contact Hours:** 4 per week

LSX423 HISTOLOGICAL TECHNIQUES 4

An advanced course dealing with specialised methods for identifying tissue components. Topics include: electron microscopy, histochemistry, immunohistochemistry. Emphasis is placed on the practical application of these methods in histopathology.
Prerequisites: LSX221, LSX323
Credit Points: 8 **Contact Hours:** 4 per week

LSX424 TRANSFUSION TECHNIQUES 4

The basic knowledge of immunology gained in LSX324 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, investigation of transfusion reactions, antenatal testing, quality control and intravenous fluids and blood products.
Prerequisite: LSX324
Credit Points: 8 **Contact Hours:** 4 per week

LSX425 CYTOLOGICAL TECHNIQUES 4

A course of lectures and associated practical work presenting specialised preparative methods for non-gynaecological cytology and demonstrating the evaluation of specimens commonly encountered in routine diagnostic cytology.
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 used in emergency situations and special equipment used in lung and cardiac surgery.
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.
Prerequisite: LSX332
Credit Points: 12 **Cnntact Hours:** 5 per week

LSX433 ANAESTHESIA FOR SPECIALISED SURGERY

Introduction to the different surgical interventions requiring anaesthesia; the techniques used and their effects on the vital parameters of patients in these special circumstances.
Prerequisite: LSX332
Credit Points: 12 **Contact Hours:** 5 per week

LSX434 PROFESSIONAL PRACTICE

The practical skills needed for the proper delivery of anaesthetic in different situations. This is essentially a practical subject, 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.
Prerequisite: LSX334
Co-requisites: LSX431, LSX432, LSX433
Credit Points: 12 **Contact Hours:** 5 per week

LWB101 INTRODUCTION TO LAW

The institutions of the law: the courts, Parliament, the judiciary, the legal profession, and their working, and the doctrines and methodology of the Law, including

the doctrine of precedent and the principles of statutory interpretation.
Credit Points: 12 per semester
Contact Hours: 3 per week

LWB102 LAW OF CONTRACT

The substantive principles of contract law, as taught, include: 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.
Credit Points: 12 per semester
Contact Hours: 3 per week

LWB103 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, 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.
Credit Points: 12 per semester
Contact Hours: 3 per week

LWB104 LEGAL RESEARCH & WRITING 1

Basic legal research skills and methodology, and how to write assignments and solve legal problems. A study of the hierarchy of the courts and the doctrine of precedent; how to use a law library effectively; practice in handling the most important research materials. An introduction to the use of computerised legal research is included.
Credit Points: 4 per semester
Contact Hours: 1 per week

LWB201 LAND LAW

The principles relating to the law of Real Property in Queensland: the rights, interests and obligations which can exist in relation to land, and the methods of creating, enforcing, assigning and extinguishing such rights, interests and obligations. The course encompasses: the concept of real property; the doctrines of tenure and of estates; equitable interests; the Torrens system; easements; mortgages; leasehold interests; covenants affecting land; co-ownership; future interests and perpetuities; building units title and group title; time-sharing; Crown leasehold.
Credit Points: 12 per semester
Contact Hours: 3 per week

LWB202 CRIMINAL LAW & PROCEDURE

The criminal law in force in Queensland, encompassing criminal responsibility, parties to offences, and major indictable offences. The wider context of the operation of the criminal law is considered, introducing students to penal principles and the justifications for imposing punishment by the State, to aspects of the disposition of offenders in the sentencing part of a criminal trial, and to a consideration of imprisonment and release procedures.
Credit Points: 12 per semester
Contact Hours: 3 per week

LWB203 CONSTITUTIONAL LAW

A study of the extent of power of the institutions which make, administer or apply the law. The federal constitution divides power between the State and Commonwealth governments, and between the legislative, executive and judicial branches of the Commonwealth government and actions which ignore those divisions can be challenged successfully in courts of law.
Credit Points: 12 per semester
Contact Hours: 3 per week

LWB301 EQUITY

Equitable doctrines were developed to complement the sometimes inflexible rules of the common law. In Semester 1, students are introduced to basic equitable principles, including a study of equitable estates and interests. Unconscionable dealings are also studied in some detail. In Semester 2, major areas of study include the law of trusts and equitable assignments.
Credit Points: 12 per semester
Contact Hours: 3 per week

LWB302 FAMILY LAW

An examination of 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. Subjects include: 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.
Credit Points: 12 **Contact Hours:** 3 per week

LWB303 COMMERCIAL LAW

The legal rules which govern mercantile dealings in personal property. The course encompasses the legal framework, the various kinds of personal property recognised in the Australian legal system, and rules which especially affect commercial transactions. Matters include: nature and sources of commercial law; personal property; negotiable instruments including bills of exchange and cheques; bailment; sale of goods; consumer protection under the Trade Practices Act 1974; insurance.
Credit Points: 12 per semester
Contact Hours: 3 per week

LWB305 JURISPRUDENCE

Jurisprudence involves the application of insights gained from philosophy: in particular from logic and from moral, political and social philosophy: to the study of law. Topics include: historical background to modern theories, sociological and historical descriptions of law and legal change, theories of limited or unlimited government power, recognition of valid law and legal systems, legal reasoning, proper objects of law and the proper direction of legal change.
Credit Points: 12 **Contact Hours:** 3 per week

LWB306 LOCAL GOVERNMENT LAW

The sources of legal authority for the government of cities, towns and shires, with particular reference to the City of Brisbane; the laws relating to town planning and subdivision, including the principles applicable to the rezoning of land; uses of land; the control of developments by local authorities; rights to object to developments; the control exercised over subdivision of land by local authorities; rights of appeal from local authority decisions; and the structure, purpose and procedure of the Local Government Court.
Credit Points: 8 **Contact Hours:** 2 per week

LWB307 INSOLVENCY LAW

The subject consists of two parts. The first deals with the insolvency of individuals and involves a study of the Bankruptcy Act 1966 (Cth). The second part covers winding up of companies, schemes of arrangement and official management as procedures other than winding up which may be open to an insolvent

company, and the law relating to receivership and mortgagees in possession. This includes a consideration of the relevant provisions of the Corporations Law.
Credit Points: 8 **Contact Hours:** 2 per week

LWB308 INDUSTRIAL LAW

Industrial law examines the rights and duties of employers and employees under the law of employment, breach of these duties, and the remedies of both parties; entitlement to workers compensation and the benefits available; the law governing the operation of trade unions and the rights of members; the settlement of industrial disputes in the Commonwealth and State spheres by conciliation and arbitration.
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.
Credit Points: 8 **Contact Hours:** 2 per week

LWB311 ADMINISTRATIVE LAW

An examination of the basis on which the courts review both administrative action taken by governments and delegated legislation, and of the remedies available and restrictions on judicial review. The alternative means of review, the Ombudsman and the Administrative Appeals Tribunal and access to government information. The special position of the Crown and the question of government liability in contract and tort.
Credit Points: 12 per semester
Contact Hours: 3 per week

LWB312 LAND CONTRACTS

This subject examines in detail the principles involved in the construction of contracts for the sale of land, with special emphasis upon the current standard REIQ Contract in use in Queensland. Special consideration is given to statutory requirements as they affect such contracts, including those relating to building units and group titles conveyancing.
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 Racial Discrimination Act, Sex Discrimination Act, Human Rights and Equal Opportunity Commission Act and Privacy Act; the practice and procedure of the Human Rights Commission and state bodies.
Credit Points: 12 **Contact Hours:** 3 per week

LWB401 COMPANY LAW & PARTNERSHIP

Company law dominates the subject and is mostly concerned with registered companies. The law relating to proprietary companies is dealt with fully, that relating to public companies in outline only. Topics include: the nature of registered companies, including procedure to obtain registration, and classification of registered companies; prospectuses; general meetings; enforcement of directors' and controlling members' duties; shares, share capital and dividends; winding-up.
Credit Points: 12 per semester
Contact Hours: 3 per week

LWB402 EVIDENCE

The rules and principles that relate to the presentation and proof of facts to a Court of Law. Litigation largely involves the application of substantive law to the facts that are determined according to the rules of evidence – students' knowledge of the substantive law is assumed. In addition to the technical rules that are considered during the course, students are encouraged to view the principles in the context of the adversary system and to recognise the problems of applying rigid rules within that system.
Credit Points: 12 **Contact Hours:** 3 per week

LWB403 TAXATION LAW

The Income Tax Assessment Act 1936 (Cth) and some related statutes. Topics include: the administrative structure and scheme of the Act, residence of taxpayers, determining assessable income and deductions, taxation of partnerships, trusts and companies, capital gains tax; tax planning; liability of tax advisors, aspects of fringe benefit tax.
Credit Points: 12 per semester
Contact Hours: 3 per week

LWB404 CIVIL PROCEDURE

Examination of the procedures by which Superior Courts resolve civil disputes. Students become familiar with Supreme, District and Federal Court rules and their application to civil litigation. Students are instructed on how to manage civil litigation files by means of extensive simulations and drafting.
Credit Points: 12 per semester
Contact Hours: 3 per week

LWB405 SOLICITORS' TRUST ACCOUNTS

Intending solicitors must study this subject which examines the Trust Account Act and Regulations and related legislation, including the Legal Assistance Act and Queensland Law Society Act. The subject provides detailed study of the legislation for practical and accounting purposes, including the format for documentation and records; reconciliations; investments; internal control and trust ledger accounts and trial balance. The course also examines the role of the auditor, audit requirements and Ministerial involvement.
Credit Points: 8 **Contact Hours:** 2 per week

LWB406 PUBLIC INTERNATIONAL LAW

An examination of 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, human rights, the law of armed conflict; the problem of the status of the law itself; comparative approaches to international legal thinking.
Credit Points: 12 **Contact Hours:** 3 per week

LWB407 CONFLICT OF LAWS

An indepth analysis of the body of law governing the resolution of private legal problems with a significant foreign element. It includes: 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.
Credit Points: 12 **Contact Hours:** 3 per week

LWB409 PROFESSIONAL CONDUCT

All LLB students, whether they intend to become barristers or solicitors, must study both parts of this subject. Barristers – conduct and etiquette at the Bar, specifically the character of practice at the Bar; regulation of practice at the Bar in Queensland; the respective duties of Barristers to the Law, the Court, the public, the client and the opponent. Solicitors – professional courtesies, division of the profession in Queensland, the Statutory Committee, malpractice, professional conduct, duties of a solicitor, respective functions of barristers and solicitors, a solicitor acting for more than one party, advertising fees, trust accounts and legal professional negligence.
Credit Points: 2
Contact Hours: 2 per week for 5 weeks (10 hours)

LWB410 TRADE PRACTICES LAW

This elective subject deals with the law established by the Trade Practices Act 1974 (Cth), as amended, and related State Laws. Topics include: background to, and need for, the legislation; constitutional basis of the Commonwealth Act; administrative arrangements and enforcement procedures; control of restrictive practices; prohibition of unfair practices; jurisdictional problems and remedies.
Credit Points: 12 **Contact Hours:** 3 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/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 teaching semester.
Credit Points: 12 **Contact Hours:** 5 per week

LWB414 DRAFTING & LEGAL TRANSACTIONS

A study of the general principles of drafting and analysis of instruments commonly used in practice including deeds, special conditions in Torrens Title conveyancing contracts, options to purchase and renew, Land Act contracts, business contracts and leases. Topics include: an introductory study of stamp duty and its applications, an examination of securities and trust instruments. Drafting covers mortgages, unit trusts and discretionary trusts, together with stamp duty implications.
Credit Points: 8 per semester
Contact Hours: 2 per week

LWB415 LEGAL RESEARCH & WRITING 2

This advanced subject revises, extends and tests students' legal research skills acquired in the introductory subject. Sources from other jurisdictions such as the UK, Canada, New Zealand and the USA are included. An important section of this subject is the researching/writing of an assignment based on a problem which involves a number of subjects studied during the LLB course, including researching recent developments in the law in those areas.
Credit Points: 4 per semester
Contact Hours: 1 per week

LWB480 MEDIA LAW

The laws which shape the news media, their industry structure and their message content. Topics include: journalists and their sources of information, defamation, contempt, confidential information, access to information, the Broadcasting Tribunal, and regulation of advertising and of ownership.
Credit Points: 12 **Contact Hours:** 3 per week

LWB481 MINERAL LAW

Predominantly, the law governing and affecting the mining of hard minerals. The subject begins with a short explanation of basic concepts, and then analyses mining legislation with particular emphasis on Queensland legislation and other legislation which has an impact on mining. The structure of mining ventures is also considered. Topics include: ownership of minerals; State agreements; securities; mining on private land; administration of mining legislation; Warden's Court; and environment protection legislation.
Credit Points: 12 **Contact Hours:** 3 per week

LWB482 COMPUTERS & THE LAW

Computers and their impact upon the law including: use of computers in the individual legal practice; computerisation of the Titles Office, Companies Register, Parliamentary Drafting, Government Printer, Supreme Court; computer contracts; computer records as evidence; implications of data storage for privacy; freedom of information. The subject includes instruction in the use of Computerised Legal Information Retrieval System (CLIRS).
Credit Points: 12 **Contact Hours:** 3 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.
Prerequisites: LWB101, LWB103
Credit Points: 12 **Contact Hours:** 3 per week

LWN001 ADVANCED COMPANY LAW

The first part of this subject considers the Companies (Acquisition of Shares) Code which regulates acquisition of shares effecting a change in a company's control. The second part considers the law of company liquidations; emphasis is given to a creditor's application for a winding-up order, and effects of a winding-up and duties/powers/rights of liquidators are also considered.
Prerequisite: LWB401 or equivalent
Credit Points: 24 **Contact Hours:** 2 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 examined.
Credit Points: 24 **Contact Hours:** 2 per week

LWN004 ADVANCED LAW OF TRUSTS

The underlying principles of areas of conceptual difficulty from the law of trusts which are of particular practical importance. A specialised examination of the principles and practice in respect of establishment, administration, distribution, taxation, liability and recognition.

Credit Points: 24 **Contact Hours:** 2 per week

LWN005 TRADE PRACTICES & CONSUMER PROTECTION

The various aspects of the current Australian Trade Practices Act 1974, not only from a technical legal viewpoint but also from a wider view of the public policy issues involved. No knowledge of economics is required, although some readings are drawn from economics. Most of the subject is devoted to a study of Part IV of the Act; Part V is considered briefly (no more than six weeks) in Second Semester. The Trade Practices Act was drafted using the well-developed United States and EEC models as a basis, and the courts, in construing the Act, sometimes refer to the primary and secondary material available from these jurisdictions. The subject therefore makes law and policy comparisons with the United States and the EEC.

Credit Points: 24 **Contact Hours:** 2 per week

LWN007 COMMERCIAL ARBITRATION

Commercial arbitration – Australian and international. Topics include: nature and conduct of arbitration proceedings, court control of arbitration, awards and their enforcement, and international commercial arbitration.

Credit Points: 24 **Contact Hours:** 2 per week

LWN008 COMMERCIAL LEASES

An examination in depth of the standards of clauses of a modern Australian commercial lease in the light of recent case law and Queensland statutory provisions affecting such interests. Where appropriate, drafting techniques are explored against the background of current problems in specific areas with the assistance of invited specialist practitioners. The topics are covered largely by way of seminar problems preceded by some introductory lecture material. Topics include: negotiation of leases, subject matter 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.

Credit Points: 24 **Contact Hours:** 2 per week

LWN011 LITIGATION

Successful litigation is a product of both favourable substantive law rights and a thorough knowledge and application of the rules of procedure and evidence. The subject examines current issues in the litigation process which present interest or difficulty in legal practice. The emphasis is on procedure and evidence in the Supreme Court of Queensland, although other jurisdictions are considered.

Credit Points: 24 **Contact Hours:** 2 per week

LWN013 COMMERCIAL REMEDIES

The main emphasis is on study of judicial remedies in civil actions relating to commercial transactions. The subject initially discusses the theory and function of such remedies, and then considers in detail remedies such as damages, equitable remedies, restitutionary claims, and some statutory remedies. A knowledge of the substantive law giving rise to the existence of a right to seek a remedy is assumed, and the focus is on the process of selecting remedies to best enforce the particular right.

Credit Points: 24 **Contact Hours:** 2 per week

LWN014 THE PRINCIPLES OF NATURAL RESOURCES LAW

An analysis of the relationships underlying the natural resources legal system in Australia. These include the State, the various executive agencies of the State, Parliament, the courts and other tribunals, the commercial community, the Aboriginal community, specific interest groups, the public interest and the community at large. It does so in relation to natural resources at large: the atmosphere, the surface of land and its related resources such as vegetation, forests, water, flora and fauna, sub-surface minerals and water, as well as the environment at large as a resource itself. The legal mechanisms include sovereignty, property, contractually and administratively created and regulated rights and duties, the common law, the criminal law, and planning and management regimes. The subject considers the international law context of the Australian system, the role of the Commonwealth and the law in Queensland.

Credit Points: 12 **Contact Hours:** 2 per week

LWN017 RESTITUTION

A restitutionary claim is allowed when a defendant obtains a benefit which must be restored to the plaintiff. The basis on which restitution is made is that the defendant has been enriched at the plaintiff's expense and that it would be unjust to allow the defendant to retain the benefit. Liability lies outside the traditional areas of civil obligation, contract and tort. The subject examines the principles of restitution, that is those circumstances in which a remedy is allowed on the basis of unjust enrichment.

Credit Points: 12 **Contact Hours:** 2 per week

LWN018 SELECT PROBLEMS OF TRUSTS

The first part of the subject concentrates on aspects of express trusts including a short refresher, management of trustee investments, and consideration of a model trustee code. The remainder of the subject concentrates upon the area of constructive trusts, and examines the nature and development of the constructive trust as a remedy with particular emphasis upon recent significant Australian decisions.

Credit Points: 12 **Contact Hours:** 2 per week

LWN019 TAXATION OF BUSINESS ENTITIES

The consequences of a sole trader setting up business in partnership with others, carrying on business activities by way of a business trust and a corporation. Approximately three-quarters of the course is devoted to the carrying on of business activities through a corporation.

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.

Credit Points: 12 **Contact Hours:** 2 per week

LWN021 BANKING & FINANCE LAW 1

Lending on the security of goods and priorities in relation to chattel securities; lending on the security of proceeds, action and chattel paper, credit cards; financing through negotiable instruments, promissory

notes and letters of credit; unitisation and property financing; project financing.
Credit Points: 12 **Contact Hours:** 2 per week

LWN022 BANKING & FINANCE LAW 2
Securitisation of debts; SWAP transactions; international financing including capital adequacy requirements; corporate reconstructions; tax based finance transactions.
Credit Points: 12 **Contact Hours:** 2 per week

LWN023 INTERNATIONAL TRADE LAW
Origins, sources and modern developments; harmonisation of law; international commercial transactions; international sale of goods; countertrade; marketing arrangements; financing international transactions; carriage of goods by sea; litigation; international commercial arbitration; other alternative dispute resolution; export assistance; investment protection; ANZCERTA; globalisation of legal services; principles of international business conduct; examination of the trade law of a selected trading partner of Australia.
Credit Points: 24 **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. The subject 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; enquiries and the laws of privacy; legislative attempts to oust judicial review of enquiries and tribunals.
Credit Points: 12 **Contact Hours:** 2 per week

LWN025 RESEARCH PROJECT 1
A supervised research project over one semester approved by the Postgraduate Studies Committee.
Credit Points: 12

LWN026 RESEARCH PROJECT 2
A supervised research project over the whole year approved by the Postgraduate Studies Committee.
Credit Points: 24

LWN027 THE PRACTICE OF NATURAL RESOURCES LAW
The practical application of the principles identified and analysed in LWN014. There are many issues in natural resources management currently under discussion: protection of the ozone layer, regulation of industrial chemicals, disposal of hazardous waste, coastal management, rehabilitation of land, environmental auditing, ecologically sustainable development, pollution control, soil erosion, catchment management, and conservation of the cultural heritage. The subject examines issues such as these from a predominantly legal perspective. It is in this sense topic-oriented and the topics selected for analysis reflect the interests of members of the class. A knowledge and understanding of the natural resources legal system in Australia is necessary for full advantage to be taken of this course.
Credit Points: 12 **Contact Hours:** 2 per week

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.
Credit Points: 12

LWN029 THEORETICAL CRIMINOLOGY
Legal and criminological conceptions of crime and punishment: nature, scope and objects of criminology. Criminological theory: classical and neo-classical theories; the positivist school; physical and biological factors and theories; psychological and psychiatric explanations, including the notion of danger; crime as a social phenomenon; radical or critical criminology; law and social change; theories of punishment.
Credit Points: 12 **Contact Hours:** 2 per week

LWN030 DISPUTE RESOLUTION/MEDIATION
A study of mediation looking at both the theory and practice. Students are expected to take part in a number of class workshops to learn mediation skills; therefore an attendance rate of 70% (ie 10 out of 14 classes) is necessary for students to gain a mark in the subject. Issues include: mediation in Australia; theories of mediators; different forms of mediation, ie. neighbourhood, family, commercial; the advantages and disadvantages of mediation; power imbalance; when mediation is not appropriate; ethical and professional issues relating to mediation. Selected readings from relevant texts and journals are distributed at the first class.
Credit Points: 12 **Contact Hours:** 2 per week

LWN031 FOREIGN INVESTMENT & PROPERTY DEVELOPMENT LAW IN AUSTRALIA
Examinination of Australian foreign investment policy and regulation and property development regulation, with a strong bias towards problems arising in practice for both areas. Foreign investment policy guidelines; the regulation of foreign investment proposals by FIRB and under the FATA; special regulation of land title and interest in land for foreigners; controls for special categories of investment and development projects such as tourism, integrated resorts, shopping centres, residential development, mining, resources development and primary industries. Matters of indirect regulation concerning such projects, eg. exchange controls, taxation implications for foreigners, business migration, customs requirements, etc. Special attention is given to aspects of governmental relations and government transactions which affect such projects and also to general regulation and protection under the law for the infrastructure of the investment or development project. Special attention is also given to the developing scope of environmental protection and other special regulatory legislation in Queensland.
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 the Queensland University of Technology and of the University of Queensland, undertake one whole year or two one-semester subjects offered in the LLM degree by Coursework at the University of Queensland. This subject code represents a one-semester subject taken pursuant to that course rule at the University of Queensland.
Credit Points: 12

LWN033 CREDIT FOR UQ SUBJECT 2

Under the course rules, a coursework student may, with the prior approval in writing of the Deans of the Faculties of Law of the Queensland University of Technology and of the University of Queensland, undertake one whole year or two one-semester subjects offered in the LLM degree by Coursework at the University of Queensland. This subject code represents a one-semester subject taken pursuant to that course rule at the University of Queensland.
Credit Points: 12

LWN034 CREDIT FOR UQ SUBJECT 3

Under the course rules, a coursework student may, with the prior approval in writing of the Deans of the Faculties of Law of the Queensland University of Technology and of the University of Queensland, undertake one whole year or two one-semester subjects offered in the LLM degree by Coursework at the University of Queensland. This subject code represents a whole year subject taken pursuant to that course rule at the University of Queensland.
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; mental illness and fitness to plead; medical records and evidence: ownership and confidentiality of records, expert evidence; the role of the Coroner; complaints against health-care workers.
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. Upon completion of this subject, 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; scheme of the Act and overview of the Heads of Charge; transactions concerning companies; transactions concerning trusts; partnership transactions; leasing and hiring transactions; financial transactions; planning and structuring issues; anti-avoidance provisions.
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. Upon completion of this subject, students have a sound understanding of the scheme of taxation which underpins the Part and of the application of that scheme to commercial transactions. Topics 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; trusts and capital gains tax; planning and structuring issues; tax avoidance and capital gains tax.
Credit Points: 12 **Contact Hours:** 2 per week

LWN039 APPLIED CRIMINOLOGY

Perceptions of crime and justice: the identification and measurement of crime; social location of crime; administration of criminal justice; key issues: victims of crime; juvenile, white-collar and corporate crime; privacy, Aboriginals and criminal justice; the system of corrections.
Credit Points: 12 **Contact Hours:** 2 per week

LWN040 THEORIES OF JUSTICE

Introduction to the history and development of the concept of justice within western and other traditions. Emphasis is placed upon the socio-political implications of these developments and their contemporary relevance to the law in Australia.
Credit Points: 12 **Contact Hours:** 2 per week

LWN100 HONOURS DISSERTATION

A dissertation undertaken by students enrolled in the Master of Laws by Coursework program 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.
Credit Points: 48

LWS001 MEDICINE & THE LAW

This subject seeks to teach students to appreciate 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 are introduced and court decisions studied.
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).
Credit Points: 8 **Contact Hours:** 3 per week

MAA251 STATISTICS & DATA PROCESSING

A basic subject in statistics, including statistical terminology and organisation of data, elementary probability, binomial and normal distribution, sampling theory, regression and correlation.
Prerequisite: Approval of Head of School of Mechanical and Manufacturing Engineering.
Credit Points: 8 **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.
Credit Points: 12 **Contact Hours:** 4 per week

MAB152 QUANTITATIVE METHODS
Organisational, analysis and interpretation of data; solution of practical problems involving basic calculus techniques and numerical methods; probability distributions; sampling; estimation; regression and correlation.
Credit Points: 8 **Contact Hours:** 3 per week

MAB172 QUANTITATIVE METHODS 1B
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.
Credit Points: 9 **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 in the models and in addition they should be able to obtain solutions to these models.
Credit Points: 12 **Contact Hours:** 3 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. Data collection and analysis in design; introduction to statistics; use of computers in data analysis; elements of computer programming.
Credit Points: 6 **Contact Hours:** 3 per week

MAB182 APPLIED MATHEMATICS FOR DESIGNERS 2
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. Data collection and analysis in design; introduction to statistics; use of computers in data analysis; elements of computer programming.
Credit Points: 6 **Contact Hours:** 3 per week

MAB193 ENGINEERING MATHEMATICS 1
Accuracy, relative and absolute errors; solution of systems of linear equations, determinants; vectors; complex numbers; elementary matrix algebra; differential and integral calculus of one variable, elementary multiple integrals; centre of gravity and moment of inertia.
Credit Points: 6 per semester
Contact Hours: 3 per week

MAB195 QUANTITATIVE METHODS 1
Applications of plane and solid geometry in design, revision of basic geometry; construction and packing of solids; spherical geometry and its applications. Application of trigonometry in design; calculation of heights, distances, areas and volumes.
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.
Credit Points: 6 **Contact Hours:** 3 per week

MAB199 SURVEY MATHEMATICS 1
Calculus: differentiation, partial differentiation, complex numbers, sequences and series, integration, applications. Matrix algebra; basic operations, linear equations, inversion, determinants, Cramer's rule. Coordinate geometry. Statistics.
Credit Points: 12 **Contact Hours:** 6 per week

MAB212 MATHEMATICS 1
Determinants and 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. Partial differentiation; geometrical interpretation; partial derivatives of higher order. Definite integral as area, indefinite integral, fundamental theorem of calculus. Integration by substitution and by parts. Improper integrals. Use of tables of integrals. Newton's method; Trapezoidal rule; Simpson's rule.
Credit Points: 12 **Contact Hours:** 3 per week

MAB213 MATHEMATICS 1A
Real valued functions; differentiation; introduction to partial differentiation; integration, techniques of integration; elementary special functions.
Credit Points: 12 **Contact Hours:** 4 per week

MAB222 MATHEMATICS 2
Revision of straight line and circle; translation of axes; parabola, ellipse, hyperbola. Exponential growth and decay; hyperbolic functions. Areas, volumes, lengths of curves and surface areas. Algebra of vectors; scalar and vector products, direction cosines, planes and lines. Rotation of axes in the plane. Differentiation of vectors, simple kinematic applications. Series expansions of functions by Taylor and Maclaurin series; approximations. Complex numbers; modulus, Argand diagram, exponential form; applications. Ordinary differential equations. First order: variables separable; exact, linear; homogeneous. Second order: linear homogeneous differential equations with constant coefficients.
Prerequisite: MAB212
Credit Points: 12 **Contact Hours:** 3 per week

MAB232 DISCRETE MATHEMATICS
Combinatorics; logic; set theory; axiomatic systems; modular arithmetic; rings, integral domains, fields; finite groups; elementary number theory; difference equations.
Co-requisite: MAB222
Credit Points: 12 **Contact Hours:** 4 per week

MAB237 STATISTICS
The collection of statistical data from surveys and experiments, investigation and analyses of the data; drawing valid conclusions. Students study real data via computer packages and are introduced to the basic

concepts of estimation, hypothesis testing, regression and analysis of variance.
Credit Points: 12 **Contact Hours:** 3 per week

MAB251 MATHEMATICS 1
Data handling; determinants and matrices; differentiation with applications; partial differentiation; integral calculus with applications; numerical methods.
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.
Prerequisite: MAB251
Credit Points: 4 **Contact Hours:** 2 per week

MAB258 EXPERIMENTAL DESIGN
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-parameter methods.
Prerequisite: MAB252
Credit Points: 4 **Contact Hours:** 2 per week

MAB297 MATHEMATICS FOR CONSTRUCTION
Data handling and basic algebra, geometry, trigonometry, vector techniques; introduction to financial mathematics; introduction to probability and statistics.
Credit Points: 4 **Contact Hours:** 2 per week

MAB298 MATHEMATICS & STATISTICS
Data handling, basic algebra, geometry, trigonometry, vector techniques; introduction to financial mathematics; introduction to probability and statistics.
Credit Points: 4 **Contact Hours:** 2 per week

MAB301 CALCULUS & ANALYSIS A
Real valued functions; differentiation; introduction to partial differentiation; integration; techniques of integration; elementary special functions.
Credit Points: 12 **Contact Hours:** 4 per week

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.
Co-requisite: MAB301
Credit Points: 12 **Contact Hours:** 4 per week

MAB304 CALCULUS & VECTOR ALGEBRA
Improper integrals; first and second order linear differential equations; elementary vector algebra; Euclidean spaces; introduction to differential geometry of curves, conic sections.
Prerequisites: MAB301, MAB303
Credit Points: 12 **Contact Hours:** 4 per week

MAB321 COMPUTATIONAL MATHEMATICS
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, programing languages and graphical/mathematical software.
Prerequisites: CSB155, MAB303
Credit Points: 12 **Contact Hours:** 4 per week

MAB342 MATHEMATICS OF FINANCE
Interest rates; solution of problems in compound interest; annuites; applications of annuities; capital redemption policies; valuation of securities; effects of taxation; introduction of basic modelling techniques.
Credit Points: 12 **Contact Hours:** 4 per week

MAB347 STATISTICS 1A
Collection and representation of data, parameters and statistics; elementary treatment of sampling; sample mean and variance; statistical estimation and tests of hypotheses based on the normal, t, F and chi-square distributions; linear regression and correlation; introduction to experimental design; introduction to non-parametric tests.
Credit Points: 12 **Contact Hours:** 4 per week

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; sampling distributions and their properties, estimation.
Prerequisite: MAB347 **Co-requisite:** MAB301
Credit Points: 12 **Contact Hours:** 4 per week

MAB420 FINITE MATHEMATICS
Set theory; relations and functions; finite group theory; Boolean algebra; methods of proof including induction; introduction to combinatorics; finite state machines; number theory; introduction to ring theory.
Prerequisites: MAB222, MAB232
Credit Points: 12 **Contact Hours:** 4 per week

MAB421 COMPUTATIONAL MATHEMATICS
Errors: sources, propagation, control; computations with polynomials, standard functions, recurrence relations and series; computations with data, searching, sorting, sums and means; computations with arrays; use of electronic calculators, PC-based Programming Languages (PASCAL), mathematical/graphical support software (DERIVE).
Prerequisites: MAB222, CSB155
Credit Points: 12 **Contact Hours:** 4 per week

MAB422 TOPICS IN MATHEMATICS
Topics in geometry, recreational mathematics, and the history of mathematics.
Prerequisite: MAB222
Credit Points: 12 **Contact Hours:** 3 per week

MAB430 LINEAR ALGEBRA & ITS APPLICATIONS
Vector spaces; linear transformations; eigenvalues and eigenvectors; Euclidean spaces; quadratic forms.
Prerequisites: MAB232, MAB222
Credit Points: 12 **Contact Hours:** 4 per week

MAB432 MATHEMATICS 3
Laplace transforms; ordinary differential equations of first and higher order; multivariable calculus; Fourier series and Fourier transforms; applications particularly relevant to physics.
Prerequisite: MAB222
Credit Points: 12 **Contact Hours:** 4 per week

MAB443 MATHEMATICS OF FINANCE
Interest rates; solution of problems in compound interest; annuities; applications of annuities; capital redemption policies; valuation of securities; effects of taxation; introduction to basic modelling techniques.
Prerequisite: MAB222
Credit Points: 12 **Contact Hours:** 4 per week

MAB447 STATISTICS 1A
See MAB347.
Credit Points: 12 **Contact Hours:** 4 per week

MAB448 STATISTICS 1B
See MAB348.
Prerequisite: Credit in MAB237 or MAB447
Co-requisite: MAB222
Credit Points: 12 **Contact Hours:** 4 per week

MAB452 MATHEMATICS 4
Partial differential equations; vector analysis; vector integration theorems; introduction to tensors; applications particularly relevant to physics.
Prerequisite: MAB432
Credit Points: 12 **Contact Hours:** 4 per week

MAB462 VECTOR ANALYSIS
Vector algebra; vector products, identities and equations; physical and geometrical applications; differentiation and integration of vectors; differential geometry of curves; conic sections.
Prerequisite: MAB212
Credit Points: 12 **Contact Hours:** 4 per week

MAB493 ENGINEERING MATHEMATICS 2
Solution of systems of linear equations by direct and iterative methods, rank of a matrix; representation of a function by Taylor series, Maclaurin series, Fourier series; finite differences, polynominal interpolation, Newton-Gregory interpolation formula; solution of first and second order differential equations, operator-D and Laplace transform methods. Taylor series and Runge-Kutta techniques; basic descriptive statistics, probability theorems, distributions.
Prerequisite: MAB193
Credit Points: 6 per semester
Contact Hours: 3 per week

MAB495 SURVEY MATHEMATICS 2
Calculus. Matrix algebra. Spherical trigonometry. Three-dimensional coordinate geometry.
Prerequisite: MAB199
Credit Points: 12 **Contact Hours:** 6 per week

MAB499 BASIC STATISTICS FOR SURVEYORS
Descriptive statistics, frequency distributions and their graphical representation, probability, sampling, estimation, tests of hypothesis, regression and correlation.
Prerequisite: MAB199[R]
Credit Points: 5 **Contact Hours:** 2 per week

MAB601 MULTIVARIABLE CALCULUS
Differentiation, extrema; double integrals, triple integrals, surface integrals; functions of a complex variable, analyticity, complex integration.
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, and electromagnetic theory; calculus of variations; functionals; Euler's differential equation; variational problems with subsidiary conditions.
Prerequisite: MAB601
Credit Points: 12 **Contact Hours:** 4 per week

MAB612 DIFFERENTIAL EQUATIONS
Linear differential equations, series methods, Laplace transforms; self adjoint boundary value problems and Fourier series; introduction to partial differential equations; mathematical modelling, applications of differential equations.
Prerequisite: MAB303, MAB304
Credit Points: 12 **Contact Hours:** 4 per week

MAB618 NUMERICAL ANALYSIS 1
Solution of systems of linear equations; numerical solution of a single non-linear equation; interpolation; quadrature; numerical solution of a single first order differential equation.
Prerequisite: MAB321
Credit Points: 12 **Contact Hours:** 4 per week

MAB619 NUMERICAL ANALYSIS 2
Systems of linear equations: direct methods, measure of work, iterative refinement, error analysis; indirect methods, convergence considerations; systems of non-linear equations; quadrature, Romberg integration; ordinary differential equations, initial and boundary value problems; eigenvalue problems, power method, inverse iteration.
Prerequisite: MAB618 **Co-requisite:** MAB630
Credit Points: 8 **Contact Hours:** 3 per week

MAB620 FINITE MATHEMATICS
Set theory; relations and functions; finite group theory; Boolean algebra; methods of proof including induction; introduction to combinatorics; finite state machines; number theory; introduction to ring theory.
Prerequisite: MAB303
Credit Points: 12 **Contact Hours:** 4 per week

MAB630 LINEAR ALGEBRA & ITS APPLICATIONS
Real and complex vector spaces, inner products; linear operators in finite dimensional space; eigen analysis, vector and matrix norms; quadratic forms; applications.
Prerequisite: MAB303
Credit Points: 12 **Contact Hours:** 4 per week

MAB635 MECHANICS
Statics; kinematics of a particle; relative motion; conservation laws of dynamics; motion of a particle in one and two dimensions; impulsive motion.
Prerequisite: MAB304
Credit Points: 12 **Contact Hours:** 4 per week

MAB637 OPERATIONS RESEARCH 1A
The fundamentals of linear programming; replacement, maintenance and reliability; project scheduling techniques; simulation.
Prerequisite: MAB303, MAB347
Credit Points: 12 **Contact Hours:** 4 per week

MAB638 OPERATIONS RESEARCH 1B
Transportation, transshipment and assignment models; introduction to sensitivity analysis; inventory models; introduction to queueing theory.
Prerequisite: MAB637
Credit Points: 8 **Contact Hours:** 3 per week

MAB641 ACTUARIAL MATHEMATICS
The life table; demographic techniques; pure endowments and annuites; assurance; policy values; laws of mortality; benefits depending on other contingencies; pension funds.
Prerequisite: MAB301, MAB342
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 i.i.d. cases; transformations; sam-

pling distributions; introduction to sampling from finite populations; introductory Markov chains; introduction to time series and auto correlation; some convergence ideas; order statistics.
Prerequisite: MAB348, MAB301
Co-requisite: MAB303
Credit Points: 12 **Contact Hours:** 4 per week

MAB648 STATISTICS 2B

One way ANOVA and multiple comparisons; Kruskal-Wallis alternative; blocking; two way ANOVA; replication, interaction; factors, levels, 22 factorial; missing values, data quality; multiple and polynomial regression; residuals; use of covariates; time series data and analysis; Q – Q plots, normal scores, introductory transformations; use of ranks; non-parametric techniques.
Prerequisite: MAB348
Credit Points: 8 **Contact Hours:** 3 per week

MAB712 DIFFERENTIAL EQUATIONS

Vector spaces with inner product; linear operations in finite dimensional spaces; linear differential equations; series methods; Laplace transforms; self adjoint boundary problems and Fourier series; partial differential equations.
Prerequisite: MAB452
Credit Points: 12 **Contact Hours:** 4 per week

MAB720 INTRODUCTION TO CRYPTOLOGY

Number theory; finite field theory; information theory; classical ciphers; modern symmetric ciphers, public key ciphers; practical cryptology.
Prerequisites: MAB420, MAB421
Credit Points: 12 **Contact Hours:** 4 per week

MAB721 ACTUARIAL MATHEMATICS

The life table; demographic topics including population projection techniques; pure endowments, life annuities, life assurances, policy values; laws of mortality; topics in general insurance.
Co-requisite: MAB442
Credit Points: 12 **Contact Hours:** 4 per week

MAB722 VECTOR FIELD THEORY

Vector algebra; scalar and vector fields; line integrals; surface integrals; differential field operators; the integral properties of fields; curvilinear coordinates; application to potential theory, hydrodynamic theory and electromagnetic theory; calculus of variations, functionals; Euler's differential equation; variational problems with subsidiary conditions.
Prerequisite: MAB452
Credit Points: 12 **Contact Hours:** 4 per week

MAB725 MECHANICS

Mathematical model of Newtonian mechanics; statics; conservation laws of dynamics; impulsive motion in one dimension; motion of a particle in one dimension; motion of a particle in two dimensions.
Prerequisite: MAB432
Credit Points: 12 **Contact Hours:** 4 per week

MAB728 NUMERICAL METHODS 1

Errors; systems of linear equations (direct methods); solution of non-linear equations; interpolation and approximation; numerical quadrature; numerical solution of first order ordinary differential equations
Prerequisite: MAB421
Credit Points: 12 **Contact Hours:** 4 per week

MAB729 NUMERICAL METHODS 2

Systems of linear equations: direct methods, measure of work, iterative refinement, error analysis; indirect methods, convergence considerations: systems of non-linear equations; quadrature (Romberg integration); ordinary differential equations, (initial and boundary value problems); eigenvalue problems, (power method, inverse iteration).
Prerequisite: MAB728 **Co-requisite:** MAB430
Credit Points: 8 **Contact Hours:** 3 per week

MAB747 STATISTICS 2A

Moment generating functions and their use in investigating the properties of particular distributions; introduction to bivariate and multivariate distributions; introduction to stochastic processes, Markov claims; introduction to time-series; autocorrelation.
Prerequisites: MAB448, MAB222
Credit Points: 12 **Contact Hours:** 4 per week

MAB748 STATISTICS 2B

One way ANOVA and multiple comparisons; Kruskal-Wallis alternative; blocking; two way ANOVA; replication, interaction; factors, levels, 22 factorial; missing values, data quality; multiple and polynomial regression; residuals; use of covariates; time series data and analysis; Q – Q plots, normal scores, introductory transformations; use of ranks; non-parametric techniques.
Prerequisites: MAB448, MAB222
Credit Points: 8 **Contact Hours:** 3 per week

MAB777 OPERATIONS RESEARCH 1A

The algorithm, simulation, replacement, maintenance and reliability, networks.
Prerequisites: MAB222, CSB155
Co-requisite: MAB448
Credit Points: 12 **Contact Hours:** 4 per week

MAB778 OPERATIONS RESEARCH 1B

Transportation, transshipment and assignment models; introductory sensitivity analysis; inventory models; introduction to queueing theory.
Prerequisite: MAB787
Credit Points: 8 **Contact Hours:** 3 per week

MAB781 MULTIVARIABLE CALCULUS

Differentiation, extrema, double integrals, triple integrals, surface integrals; complex integration.
Prerequisite: MAB432
Credit Points: 12 **Contact Hours:** 4 per week

MAB795 SURVEY MATHEMATICS 3

Transformation in three dimensions: central projection, the nearparallel 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.
Prerequisite: MAB495
Credit Points: 6 **Contact Hours:** 3 per week

MAB893 ENGINEERING MATHEMATICS 3

Eigenvalues and eigenvectors, quadratic forms, determination of dominant eigenvalue by iteration; sampling theory, hypothesis testing, linear regression and correlation, analysis of variance; introduction to linear programming.
Prerequisite: MAB493
Credit Points: 6 **Contact Hours:** 3 per week

MAB894 ENGINEERING MATHEMATICS 4

Solution of linear systems of differential equations employing operator-D and Laplace transform methods, variation of parameters methods for non-homogenous equations; solution of partial differential equations, separation of variables method, introduc-

tion to numerical techniques; complex variables, Cauchy-Riemann equations, conformal mapping.
Prerequisite: MAB493
Credit Points: 6 **Contact Hours:** 3 per week

MAB895 INTRODUCTION TO CRYPTOLOGY

Number theory; finitefield theory; information theory; classical ciphers; key ciphers; practical cryptology.
Prerequisite: MAB493
Credit Points: 7 **Contact Hours:** 4 per week

MAB896 ERROR CORRECTION & DATA COMPRESSION

Data compression techniques; introduction to block codes; convolutional codes; cyclic codes and Reed-Solomon codes; other coding techniques and applications.
Prerequisite: MAB895
Credit Points: 7 **Contact Hours:** 4 per week

MAB906 TOPICS IN ANALYSIS

Topics selected from the following: measures; Lesbesque integrals; product of measures; normed spaces; metric spaces; constrained optimisation, Gateaux and Frechet derivatives.
Prerequisites: MAB601, MAB612
Credit Points: 12 **Contact Hours:** 4 per week

MAB907 STATISTICS 3A

Estimation; testing; exponential; linear models; introduction to generalised linear models; multicollinearity, heteroscedasicity, effect of autocorrelation; non linear LSE; introduction to diagnostics.
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.
Prerequisite: MAB648
Credit Points: 12 **Contact Hours:** 4 per week

MAB913 NUMERICAL ANALYSIS 3

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 transforms, orthogonal reductions, Givens and Householder methods, determination of eigensystems by the QR algorithm, emphasis on symmetric matrices. Stability analyses for IVPs, types of instability, inherent and induced, partial instability.
Prerequisite: MAB619
Credit Points: 12 **Contact Hours:** 4 per week

MAB920 CODING & ENCRYPTION TECHNIQUES

Number theory; finite field theory; information theory; classical ciphers; modern symmetric ciphers, public key ciphers; practical cryptology.
Prerequisite: MAB622
Credit Points: 12 **Contact Hours:** 3 per week

MAB927 OPERATIONS RESEARCH 2A

Algorithms of linear programming; integer and mixed integer programming; non-linear programming; dynamic programming; heuristic methods.
Prerequisite: MAB638
Credit Points: 12 **Contact Hours:** 4 per week

MAB928 OPERATIONS RESEARCH 2B

Simulation; queueing theory; decision analysis; implementation in operations research.
Prerequisite: MAB637
Credit Points: 12 **Contact Hours:** 4 per week

MAB929 TIME SERIES & STATISTICAL FORECASTING

Review of smoothing and decomposition methods; ARMA time series methods; Box-Jenkins method; pooling of time series and cross-sectional data; causality; recursive estimation and prediction of stationary processes; multivariate time series; comparison and selection of forecasting methods.
Prerequisites: MAB647, MAB648
Credit Points: 12 **Contact Hours:** 4 per week

MAB941 MATHEMATICAL MODELLING IN ECONOMICS

Mathematical models in economics; macro and micro economic models; simulation; growth and decay models; dynamic economic models; introduction to stability theory; stability of linear systems.
Prerequisites: MAB601, MAB612
Credit Points: 12 **Contact Hours:** 4 per week

MAB942 OPTIMISATION METHODS

Analytic calculation of maxima and minima in functions of several variables; constrained optimisation using Lagrange multiplier and penalty techniques; quadratic and convex programming; 1 dimensional search techniques; direct (non-derivative) search techniques; gradient methods; least squares; global optimisation strategies.
Prerequisites: MAB601, MAB618
Credit Points: 12 **Contact Hours:** 4 per week

MAB960 PROJECT WORK

Students, either individually or in small groups, undertake a substantial project which is relevant to the needs of industry and which is designed to give students insight into industrial requirements. Each student, or group of students, undertakes a different project and is supervised, generally by a member of staff, throughout the duration of the project.
Prerequisite: Successful completion of at least 192 credit points including at least two subjects 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, similation. Branch process.
Prerequisite: MAB647
Credit Points: 12 **Contact Hours:** 4 per week

MAB971 ADVANCED MATHEMATICS OF FINANCE

Study of mathematical techniques and concepts which are important in capital markets, foreign exchange dealings, fund management and assessment. Other advanced topics to be developed in consultation with the financial industry.
Prerequisite: MAB641
Credit Points: 12 **Contact Hours:** 4 per week

MAB972 ERROR CORRECTION & DATA COMPRESSION

Data compression techniques; introduction to block codes; convolutional codes; cyclic codes and Reed-Solomon codes; other coding techniques and applications.
Prerequisite: MAB920
Credit Points: 12 **Contact Hours:** 4 per week

MAB973 PARTIAL DIFFERENTIAL EQUATIONS

Derivation and solution of first order partial differential equations. Derivation of second order partial differential equations: the wave equation, the heat conduction equation, the equation of a bending beam, equations for fluid flow. Classification of second order equations. Discussion of boundary conditions. Solution of second order equations by: the method of characteristics, separation of variables, integral transforms.
Prerequisites: MAB602, MAB612
Credit Points: 12 **Contact Hours:** 4 per week

MAB974 SAMPLING & SURVEY TECHNIQUES

Simple and stratified random sampling; estimates; design of questionnaires; data quality and errors in surveys; systematic, cluster and double sampling plans; imputation techniques; alternatives to household surveys.
Prerequisites: MAB647, MAB648
Credit Points: 12 **Contact Hours:** 4 per week

MAB975 ORDINARY DIFFERENTIAL EQUATIONS & CHAOS

Singular points in systems of ordinary differential equations; eigenvalues of systems of ordinary differential equations; system stability using phase plane portraits; chaotic systems; analytic and numerical solution of equations describing systems with chaotic and singular behaviour.
Prerequistes: MAB601, MAB612, MAB619
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; Coxs proportional hazards model; competing hazards.
Prerequisites: MAB647, MAB648
Credit Points: 12 **Contact Hours:** 4 per week

MAB977 SCHEDULING & NETWORKS

Deterministic and probabilistic inventory models. Aggregate planning and master scheduling. Requirement planning. Operations sequencing and balancing. Project management: network models, minimum cost paths. 'Just in time' problems and enhanced scheduling. Replacement, maintenance and reliability.
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 autocorrelation. Two dimensional spectral analysis, 2 dimensional filtering and image enhancement. Image compression.
Prerequisites: MAB318, MAB608
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.
Prerequisites: MAB907, MAB601
Credit Points: 12 **Contact Hours:** 4 per week

MAB980 STOCHASTIC PROCESSES & APPLICATIONS

Gaussian processes; Brownian motion; diffusions; stochastic equations; martingales; random walks; central limit theorems; applications of martingales. Epidemic models. Queueing models. Stochastic compartment models. Extreme value theory for stochastic processes.
Prerequisites: MAB970 or (MAB906, MAB929)
Credit Points: 12 **Contact Hours:** 4 per week

MAB981 APPLIED STATISTICAL INFERENCE & EXPERIMENTATION

Jackknife, bootstrap and other resampling ideas; prediction. Application to calibration. Introduction to Bayesian ideas; applications of Bayesian theory; quasi-likelihood; principal component analysis; discriminant and cluster analysis; some robust methods in experimental design and data analysis
Prerequisites: MAB907, MAB908, MAB630
Credit Points: 12 **Contact Hours:** 4 per week

MAB982 ADVANCED TOPICS IN CRYPTOLOGY

Advanced information theory: indepth study of the relation between information theory and cryptology. Design and cryptanalysis of ciphers: indepth study of methods for forming secure ciphers and attacking various ciphers. Secret sharing schemes: introduction to various secret sharing schemes and their application. Crypto-protocols: study of methods of protocol including zero knowledge systems. Current topics in cryptology: study of current developments and trends in cryptology.
Prerequisite: MAB920 or (MAB895 + GPA 5)
Credit Points: 12 **Contact Hours:** 4 per week

MAB983 FINITE MATHEMATICS

Topics in finite mathematics.
Prerequisite: Approved Honours or postgraduate program.
Credit Points: 24 **Contact Hours:** 8 per week

MAB984 ACTUARIAL STATISTICS

Distribution theory. Financial stochastic models and problem-solving with them. Credibility, utility and risk theory. Loss and ruin models.
Prerequisite: MAB907 **Co-requisite:** MAB970
Credit Points: 12 **Contact Hours:** 4 per week

MAB985 NUMERICAL ANALYSIS

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.
Prerequisite: MAB913
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.
Prerequisites: MAB973, MAB601, MAB913
Co-requisite: 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.
Prerequisites: MAB601, MAB612
Credit Points: 12 **Contact Hours:** 4 per week

MAB989 PROJECT

Project and thesis component of Honours course (SC60).
Prerequisite: Approved Honours program.
Credit Points: 36

MAP111 STATISTICAL METHODS IN QUALITY

Describing variation, frequency distribution, histogram, estimation of parameters. Important distributions useful in describing quality-related phenomena, binomial, hypergeometric, Poisson, normal, exponential, Weibull. Approximations, Poisson to binomial, normal to binomial, etc. Sampling distributions. Interval estimation and tests of hypotheses. Type 1 and type 2 errors.
Credit Points: 6 **Contact Hours:** 3 per week

MAP121 STATISTICAL PROCESS CONTROL

Basic concepts and preliminary considerations. Control chart procedures for variables, S and R charts, pattern analysis and interpretation. Process capability study, natural tolerances, capability ratio, modified control charts. Attribute control charts, construction and interpretation of p, c and u charts. Cusum techniques for continuous data, scope and principles, procedure and interpretation, testing techniques – V mask, decision interval. Cusum applications to discrete data. SPC computer software.
Credit Points: 6 **Contact Hours:** 3 per week

MAP211 SAMPLING PROCEDURES

Basic concepts and principles in sampling. Attribute batch sampling, sampling plans (single, double and multiple), OC curves. AS1199, terminology and definitions, choice of plan and switching rules. Attribute batch sampling with rectifying inspection, Dodge Romig procedure, use of tables. Attribute continuous sampling and the Dodge system (CSP-1, etc.). Sampling by variables, plans and procedures. AS2490, terminology and definitions, inspection rules.
Credit Points: 6 **Contact Hours:** 3 per week

MAP221 QUALITY PROBLEM SOLVING TECHNIQUES

Collection of data and use of check sheets. Histogram as a diagnostic tool. Pareto diagram, stratified data, use of weighted factors; Ishikawa chart, dispersion analysis and process classification type. Kepner Tregoe technique. Correlation analysis, scattergram and the Tukey corner test, independence and spurious correlation, regression equation and prediction. Design of experiments, principles and basic concepts, Latin Square design, factorial experiments.
Credit Points: 8 **Contact Hours:** 2 per week

MAS090 MATHEMATICS

This intensive subject is aimed at providing an appropriate background for those who may wish to undertake a tertiary course in science, business or other areas which require competence in certain mathematical areas prior to entry. Topics include: algebra, analytical geometry, trigonometry, differential and integral calculus, matrices and a selection of applications from elementary statics, kinematics, dynamics and 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.
Credit Points: 6 per semester
Contact Hours: 3 per week

MAS092 MATHEMATICS A

This subject is aimed at providing a mathematical background pertinent to those who may wish to undertake a tertiary course in computing. Topics include: algebra, matrices, analytical geometry, trigonometry, propositions and truth tables, set theory. 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.
Credit Points: 6 **Contact Hours:** 3 per week

MAX173 QUANTITATIVE METHODS

Applications of mathematics in business; exponential and logarithmic functions; interest calculations; annuities; sinking funds; depreciation; descriptive statistics; probability; graphical techniques; linear regression and correlation.
Credit Points: 12 **Contact Hours:** 4 per week

MDB101 PERSONAL COMPUTING

The development of competence with modern computers and peripherals so that they can be used with young children; wordprocessing and the use of database and spreadsheet packages; the features of computers important for teaching and the use of computers with young children.
Credit Points: 4 **Contact Hours:** 2 per week

MDB102 NUMBER ENRICHMENT FOR YOUNG CHILDREN

The development of practical activities and constructing classroom resources to teach number in early childhood; counting and precounting activities; early grouping and numeration games; language and number materials; early estimation and mental computation techniques and number puzzles and tricks.
Credit Points: 4 **Contact Hours:** 2 per week

MDB103 MATHEMATICAL THINKING & PROBLEM SOLVING

Creative problem solving and mathematical thinking activities suitable for kindergarten, preschool and years 1-3; problem solving with materials; early logical thinking; visual patterns with blocks, jigsaw and other puzzles, and cooperative group and philosophy for children techniques.

Credit Points: 4 **Contact Hours:** 2 per week

MDB104 SCIENCE MODELS & TOYS

Toys children play with can be starting points for scientific investigations for young children. Toys provide motivation and are familiar to children. The science is built around experiences and ideas encountered from toy boats, motors (elastic, clockwork and steam), balls, cameras (from which notions concerning safety and timing can be developed), trains and cars (which can introduce ideas such as gears and looping the loop) and flying models (paper aeroplanes and gliders).

Credit Points: 4 **Contact Hours:** 2 per week

MDB105 WRITING & COMPUTERS

The use of computers in the writing process by both adults and young children. Appropriate word processing and applications software are used by students. The social, economic and educational implications of the technology are addressed.

Credit Points: 8 **Contact Hours:** 3 per week

MDB106 PROBLEM-SOLVING WITH COMPUTER GRAPHICS

Design principles appropriate to generating graphic images; the use of computer graphics packages; programming in a computer graphics language; dynamic computer graphics and animation; educational applications for young children.

Contact Hours: 8 **Contact Hours:** 2 per week

MDB220 MATHEMATICS FOUNDATION

The process of mathematics and the role of mathematics in society; mathematical competencies in a technological world; logic and sets and the various forms of mathematical thinking; basic mathematical structures and properties and how these can be seen within mathematics syllabuses; the dynamic nature of mathematics.

Credit Points: 8 **Contact Hours:** 3 per week

MDB221 SCIENCE FOUNDATIONS

The development of understanding the concepts of science. Presenting a positive view of science through the examination of: the nature of science; the historical development of major concepts of science; development of scientific language; relationship of science to society. Links between the view of society and the ideas and knowledge which have been generated and applied to the solution of problems.

Credit Points: 8 **Contact Hours:** 3 per week

MDB222 MATHEMATICS EDUCATION 1

Extension from MA3040 of the importance of considering the structure of mathematics to the planning of curricula appropriate for young children. Key concepts and skills that form the structure of mathematics. Links to teaching methods that connect mathematics in real world situations to concrete and symbolic representatives of discipline. The role of language. Importance of selecting and teaching mathematics in a technological age.

Prerequisite: MDB220

Credit Points: 8 **Contact Hours:** 3 per week

MDB228 SCIENCE EDUCATION

The role of particular psychological, developmental and sociological approaches which play a significant role in science curriculum and development. The development of an understanding of the particular process skills and manipulative skills associated with science. Comparison 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.

Prerequisite: MDB221

Credit Points: 8 **Contact Hours:** 3 per week

MDB231 MATHEMATICS EDUCATION 2

Greater insight into children's acquisition of mathematical competence with particular emphasis on the role of higher-order thinking skills in the learning process. Emphasis on the development of important mathematical skills such as decision making and problem solving, critical analysis and reflection, and logical reasoning. Examination of curriculum topics from both a content perspective and a processing perspective. The topics to be addressed include the skills of problem solving, statistical analysis, elementary probability, measurement concepts and processes, visual imagery and spatial problem solving.

Prerequisite: MDB222

Credit Points: 12 **Contact Hours:** 4 per week

MDB260 STRUCTURE IN MATHEMATICS

The nature of mathematics: the presentation of mathematics as a logical and visual process of patterning and generalising; application of this knowledge to number and space to develop content sequences and taxonomies. Mathematical pattern and structure: introduction to patterns from number theory and concepts and principles from algebra, geometry and calculus. Study of the common errors in children's mathematical performance and application of knowledge to infer the causes of these errors.

Prerequisite: MDB220

Credit Points: 8 **Contact Hours:** 3 per week

MDB261 EARTH & SPACE

Time and motion: observations of the notion of the earth; motions of objects through the sky and interrelatedness of time. Earth and its environment: theories of the origin of the earth and its liquid and gaseous environment; geological and biological evolution of the earth incorporating real world practical problems. Frontiers of space: spectroscopy, optical and radio astronomical techniques at a basic level.

Credit Points: 8 **Contact Hours:** 3 per week

MDB262 HISTORY OF MATHEMATICS

Philosophy and history of mathematical thinking: the role of thinking in mathematics and vice versa, the history of the thinking movement, and approaches to developing mathematical thinking skills. History of basic mathematical topics: numeration systems, algorithms, algebra, geometry and measurement. Conceptions of mathematics: the role of intuition, logic, real world applications and formality. Applications to teaching.

Prerequisite: MDB260

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

MDB263 APPLICATIONS IN MATHEMATICS

Modelling and mathematical applications: the role of modelling in applying mathematics to real world problems. Mathematical applications: discrete math-

ematics, statistical and computer applications, game and queuing theory. Modelling in mathematics instruction: how to use the above to extend and enrich teaching.
Prerequisite: MDB262
Credit Points: 12 **Contact Hours:** 3 per week

MDB270 COMPUTER EDUCATION
The exploration of the uses of computer-based technology. Consideration of educational issues such as: curriculum planning and implementation considerations; criteria for the evaluation of computer hardware and software; and policies for computer use in schools.
Credit Points: 8 **Contact Hours:** 3 per week

MDB350 BIOLOGY CURRICULUM & TEACHING STUDIES 1
Builds on CUB301 to give a greater understanding of the nature of biology as an applied curriculum area. Provides insights into relevant Queensland syllabus and curriculum documents, develops competencies in planning and teaching and makes close links with teaching practice.
Prerequisites: CUB301 and at least 48 credit points in each relevant discipline area.
Credit Points: 8 **Contact Hours:** 3 per week

MDB351 BIOLOGY CURRICULUM & TEACHING STUDIES 2
Studied in association with CUB302. Provides opportunities for consideration and practical application of broad curricular and teaching principles and systems policies within the more specific context of this curriculum area. As with CUB302, establishes principles which are used to guide school experience during teaching practice and also as a beginning teacher.
Prerequisite: MDB350
Co-requisites: CUB302, EDB302
Credit Points: 12 **Contact Hours:** 3 per week

MDB352 BIOLOGY CURRICULUM & TEACHING STUDIES 3
Last in the Curriculum and Teaching Studies series with a major focus on contemporary issues and emerging trends pertaining to curriculum development in this curriculum area. Includes the study of advanced planning and teaching strategies and provides opportunities for application of planning and teaching skills during practice teaching.
Prerequisites: MDB350, MDB351, CUB302
Credit Points: 8 **Contact Hours:** 3 per week

MDB353 CHEMISTRY CURRICULUM & TEACHING STUDIES 1
Builds on CUB301 to give a greater understanding of the nature of chemistry as an applied curriculum area. Provides insights into relevant Queensland syllabus and curriculum documents, develops competencies in planning and teaching and makes close links with teaching practice.
Prerequisites: CUB301 and at least 48 credit points in each relevant discipline area.
Credit Points: 8 **Contact Hours:** 3 per week

MDB354 CHEMISTRY CURRICULUM & TEACHING STUDIES 2
Studied in association with CUB302. Provides opportunities for consideration and practical application of broad curricular and teaching principles and systems policies within the more specific context of this curriculum area. As with CUB302, establishes principles which are used to guide school experience during teaching practice and also as a beginning teacher.
Prerequisite: MDB353
Co-requisites: CUB302, EDB302
Credit Points: 12 **Contact Hours:** 3 per week

MDB355 CHEMISTRY CURRICULUM & TEACHING STUDIES 3
Last in the Curriculum and Teaching Studies series with a major focus on contemporary issues and emerging trends pertaining to curriculum development in this curriculum area. Includes the study of advanced planning and teaching strategies and provides opportunities for application of planning and teaching skills during practice teaching.
Prerequisites: SBB353, SBB354, CUB302
Credit Points: 8 **Contact Hours:** 3 per week

MDB356 COMPUTING CURRICULUM & TEACHING STUDIES 1
Builds on CUB301 to give a greater understanding of the nature of computing as an applied curriculum area. Provides insights into relevant Queensland syllabus and curriculum documents, develops competencies in planning and teaching and makes close links with teaching practice.
Prerequisites: CUB301 and at least 48 credit points in each relevant discipline area.
Credit Points: 8 **Contact Hours:** 3 per week

MDB357 COMPUTING CURRICULUM & TEACHING STUDIES 2
Studied in association with CUB302. Provides opportunities for consideration and practical application of broad curricular and teaching principles and systems policies within the more specific context of this curriculum area. As with CUB302, establishes principles which are used to guide school experience during teaching practice and also as a beginning teacher.
Prerequisite: MDB356
Co-requisites: CUB302, EDB302
Credit Points: 12 **Contact Hours:** 3 per week

MDB358 COMPUTING CURRICULUM & TEACHING STUDIES 3
Last in the Curriculum and Teaching Studies series with a major focus on contemporary issues and emerging trends pertaining to curriculum development in this curriculum area. Includes the study of advanced planning and teaching strategies and provides opportunities for application of planning and teaching skills during practice teaching.
Prerequisites: MDB356, MDB357, CUB302
Credit Points: 8 **Contact Hours:** 3 per week

MDB359 EARTH SCIENCE CURRICULUM & TEACHING STUDIES 1
Builds on CUB301 to give a greater understanding of the nature of earth science as an applied curriculum area. Provides insights into relevant Queensland syllabus and curriculum documents, develops competencies in planning and teaching and makes close links with teaching practice.
Prerequisites: CUB301 and at least 48 credit points in each relevant discipline area.
Credit Points: 8 **Contact Hours:** 3 per week

MDB360 EARTH SCIENCE CURRICULUM & TEACHING STUDIES 2
Studied in association with CUB302. Provides opportunities for consideration and practical application of broad curricular and teaching principles and systems policies within the more specific context of this curriculum area. As with CUB302, establishes principles

which are used to guide school experience during teaching practice and also as a beginning teacher.
Prerequisite: MDB359
Co-requisites: CUB302, EDB302
Credit Points: 12 **Contact Hours:** 3 per week

MDB361 EARTH SCIENCE CURRICULUM & TEACHING STUDIES 3

Last in the Curriculum and Teaching Studies series with a major focus on contemporary issues and emerging trends pertaining to curriculum development in this curriculum area. Includes study of advanced planning and teaching strategies and provides opportunities for application of planning and teaching skills during practice teaching.
Prerequisites: MDB359, MDB360, CUB302
Credit Points: 8 **Contact Hours:** 3 per week

MDB362 MATHEMATICS CURRICULUM & TEACHING STUDIES 1

Builds on CUB301 to give a greater understanding of the nature of mathematics as an applied curriculum area. Provides insights into relevant Queensland syllabus and curriculum documents, develops competencies in planning and teaching and makes close links with teaching practice.
Prerequisites: CUB301 and at least 48 credit points in each relevant discipline area.
Credit Points: 8 **Contact Hours:** 3 per week

MDB363 MATHEMATICS CURRICULUM & TEACHING STUDIES 2

Studied in association with CUB302. Provides opportunities for consideration and practical application of broad curricular and teaching principles and systems policies within the more specific context of this curriculum area. As with CUB302, establishes principles which are used to guide school experience during teaching practice and also as a beginning teacher.
Prerequisite: MDB362
Co-requisites: CUB302, EDB302
Credit Points: 12 **Contact Hours:** 3 per week

MDB364 MATHEMATICS CURRICULUM & TEACHING STUDIES 3

Last in the Curriculum and Teaching Studies series with a major focus on contemporary issues and emerging trends pertaining to curriculum development in this curriculum area. Includes the study of advanced planning and teaching strategies and provides opportunities for application of planning and teaching skills during practice teaching.
Prerequisites: MDB362, MDB363, CUB302
Credit Points: 8 **Contact Hours:** 3 per week

MDB365 PHYSICS CURRICULUM & TEACHING STUDIES 1

Builds on CUB301 to give a greater understanding of the nature of physics as an applied curriculum area. Provides insights into relevant Queensland syllabus and curriculum documents, develops competencies in planning and teaching and makes close links with teaching practice.
Prerequisites: CUB301 and at least 48 credit points in each relevant discipline area.
Credit Points: 8 **Contact Hours:** 3 per week

MDB366 PHYSICS CURRICULUM & TEACHING STUDIES 2

Studied in association with CUB302. Provides opportunities for consideration and practical application of broad curricular and teaching principles and systems policies within the more specific context of this curriculum area. As with CUB302, establishes principles which are used to guide school experience during teaching practice and also as a beginning teacher.
Prerequisite: MDB365
Co-requisites: CUB302, EDB302
Credit Points: 12 **Contact Hours:** 3 per week

MDB367 PHYSICS CURRICULUM & TEACHING STUDIES 3

Last in the Curriculum and Teaching Studies series with a major focus on contemporary issues and emerging trends pertaining to curriculum development in this curriculum area. Includes study of advanced planning and teaching strategies and provides opportunities for application of planning and teaching skills during practice teaching.
Prerequisites: MDB365, MDB366, CUB302
Credit Points: 8 **Contact Hours:** 3 per week

MDB368 SCIENCE CURRICULUM & TEACHING STUDIES 1

Builds on CUB301 to give a greater understanding of the nature of science as an applied curriculum area. Provides insights into relevant Queensland syllabus and curriculum documents, develops competencies in planning and teaching and makes close links with teaching practice.
Prerequisites: CUB301 and at least 48 credit points in each relevant discipline area.
Credit Points: 8 **Contact Hours:** 3 per week

MDB369 SCIENCE CURRICULUM & TEACHING STUDIES 2

Studied in association with CUB302. Provides opportunities for consideration and practical application of broad curricular and teaching principles and systems policies within the more specific context of this curriculum area. As with CUB302, establishes principles which are used to guide school experience during teaching practice and also as a beginning teacher.
Prerequisite: MDB368
Co-requisites: CUB302, EDB302
Credit Points: 12 **Contact Hours:** 3 per week

MDB370 SCIENCE CURRICULUM & TEACHING STUDIES 3

Last in the Curriculum and Teaching Studies series with a major focus on contemporary issues and emerging trends pertaining to curriculum development in this curriculum area. Includes the study of advanced planning and teaching strategies and provides opportunities for application of planning and teaching skills during practice teaching.
Prerequisites: MDB368, MDB369, CUB302
Credit Points: 8 **Contact Hours:** 3 per week

MDB377 PROJECT PLANNING & IMPLEMENTATION

Planning, implementation and management of projects involving the use of computers.
Prerequisites: CSB864, ISB865, CSB866
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.
Credit Points: 12 **Contact Hours:** 3 per week

MDB411 EARLY CHILDHOOD MATHEMATICS CURRICULUM

Theoretical background and research; logical sequence of mathematics and children's cognitive development; mathematics content and learning experiences for early childhood; integration and application.

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

MDB412 PRIMARY MATHEMATICS CURRICULUM

The influential factors on the development and content of mathematics education; how students learn and apply mathematics; identification of effective curriculum models and teaching strategies for mathematics.

Prerequisite: CUB410 (or equivalent)

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

MDB413 SECONDARY MATHEMATICS CURRICULUM

Current syllabus developments, teaching strategies and curriculum models for secondary mathematics; planning and evaluating sequences of learning activities for secondary school mathematics; designing and evaluating a variety of forms of assessment.

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

MDB415 PRIMARY SCIENCE CURRICULUM

The nature and importance of science in primary schools; theoretical principles of science curriculum development; elements of program planning and evaluation, development of practical teaching sequences of classroom activities.

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

MDB416 SECONDARY SCIENCE CURRICULUM

Review of directions for secondary science education; evaluation of present curricula and resources; review of how students learn science; learning difficulties; approaches to assessment.

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

MDB430 TEACHING MATHEMATICS PROBLEM SOLVING

Definition and importance of problem solving; problem solving strategies; measures of problem solving performance; methods of teaching problem solving.

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.

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

MDB441 EXPLORATIONS USING LOGO

Learning to program in Logo; creating and solving problems using Logo; exploring curriculum applications with Logo; general problem solving skills.

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

MDB490 TOPICS IN TEACHING MATHEMATICS

Development of programs for teaching numeration; language in the mathematics program; memorisation strategies; teaching algorithms; measurement and spatial components; problem solving; the role of computers and calculators in mathematics.

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

MDN601 CURRICULUM STUDIES IN MATHEMATICS, SCIENCE & COMPUTER EDUCATION

Curriculum theory: intended, developed and enacted curriculum; curriculum design: models for curriculum design; impact on information technology; curriculum implementation: vocational models; discipline models, individualised models, school-based models, innovations; curriculum evaluation; historical factors affecting the curriculum in mathematics, science and technology education.

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

MDN602 FOCUS ON THE MATHEMATICS, SCIENCE & COMPUTER EDUCATION CLASSROOM

The role of the teacher: metaphors, perceptions, curriculum change, the effective teacher; classroom climate: cooperative versus competitive learning, student/teacher interactions; psychological and learning theories and their application to teaching of mathematics, science and technology education.

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

MDN603 CURRICULUM SPECIALISATION IN MATHEMATICS, SCIENCE & COMPUTER EDUCATION

Special topics in mathematics, science and computer curriculum; curriculum at specific year level; special needs of students; past and future trends in curriculum design and implementation. Content varies depending on the needs of the students in the subject.

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

MDN604 DIAGNOSIS & ASSESSMENT IN MATHEMATICS

Techniques for diagnosis and remediating difficulties in mathematics; assessment models and their interrelationship with instruction; designing assessment instruments; modern developments in classroom evaluation; practical work with clients.

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

MDN605 RESOURCES & TECHNOLOGY IN MATHEMATICS & SCIENCE EDUCATION

Computers in mathematics and science education: software for high order thinking; using computers to reorganise mental functioning; other resources and technologies: print materials, community resources; social, cultural and educational issues in using technology.

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

MDN606 POLICY STUDY IN MATHEMATICS & SCIENCE EDUCATION

Major documents affecting mathematics and science education in schools; comparative studies of curriculum in different countries; rationale for policy statements; contextual factors affecting policy formulation; school versus system policies.

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

MDN607 ISSUES IN SCIENCE EDUCATION

Equity consideration; science learning and concept development; practical and laboratory skills; science and technology in society; communication in science. Content of subject may vary according to the interest of the students.

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

MDN608 COMPUTER SUPPORTED LEARNING ENVIRONMENTS

Interactive models: media, expressive, constructive, and reflective; human-machine interaction: modelling the knowledge of computer users; physical environments: networking, access, personal and portable computers; links with surrounding cultures and experimental approaches and innovations.
Credit Points: 12 **Contact Hours:** 3 per week

MDN609 EMERGING EDUCATIONAL TECHNOLOGIES

Educational applications of artificial intelligence: tutoring systems, robotic systems and expert systems; applications of multimedia systems; powerful graphic systems; cognitive modelling; development and evaluation of educational materials using technologies.
Credit Points: 12 **Contact Hours:** 3 per week

MDN610 THE COMPUTER AS INSTRUCTIONAL MEDIUM

History of technology in education and training: teaching machines, audiovisual devices, instructional television; issues in the use of technology in education: impact of the information revolution, costs, social effects, equity; presentation of educational materials: authoring systems, interactive video; evaluation of instructional materials.
Credit Points: 12 **Contact Hours:** 3 per week

MDP420 COMPUTER EDUCATION CURRICULUM & TEACHING STUDIES A

The broad issues of computer curricula; the place of computing across the curriculum; the more specific computing subjects in the senior school; managing computing within an educational environment.
Prerequisite: Appropriate discipline studies in the undergraduate degree.
Co-requisite: EDP450
Credit Points: 24 **Contact Hours:** 6 per week

MDP421 COMPUTER EDUCATION CURRICULUM & TEACHING STUDIES B

Provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies and examines the roles of the teacher in the community and the profession.
Prerequisite: MDP420 **Co-requisite:** EDP451
Credit Points: 12 **Contact Hours:** 3 per week

MDP430 MATHEMATICS CURRICULUM & TEACHING STUDIES A

The mathematics curriculum area is covered with a study of the place of mathematics in society and its relation to mathematics taught in schools. This subject considers the Mathematics syllabus in P-10 and in the senior school.
Prerequisite: Appropriate discipline studies in the undergraduate degree.
Co-requisite: EDP450
Credit Points: 24 **Contact Hours:** 6 per week

MDP431 MATHEMATICS CURRICULUM & TEACHING STUDIES B

Provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies and examines the roles of the teacher in the community and the profession.
Prerequisite: MDP430 **Co-requisite:** EDP451
Credit Points: 12 **Contact Hours:** 3 per week

MDP432 JUNIOR MATHEMATICS CURRICULUM & TEACHING STUDIES C

This Curriculum C subject offers studies which enable appropriately qualified students to teach junior mathematics at lower levels of the secondary school. It applies the of principles, skills and understandings developed in the Curriculum A subject and which are expanded in the Curriculum B subject.
Credit Points: 12 **Contact Hours:** 3 per week

MDP440 SCIENCE CURRICULUM & TEACHING STUDIES A

An introduction to a study of the issues and practice in Science curriculum through a model for science education which emphasises differing purposes and contexts. Topics include integrated science curricula; the P-10 science curriculum framework and syllabus; the senior schooling curriculum framework and multistrand science at upper secondary level. Aspects specific to science curriculum such as laboratory safety and laboratory skill development are also studied.
Prerequisite: Appropriate discipline studies in the undergraduate degree.
Co-requisite: EDP450
Credit Points: 24 **Contact Hours:** 6 per week

MDP441 SCIENCE CURRICULUM & TEACHING STUDIES B

Provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies and examines the roles of the teacher in the community and the profession.
Prerequisite: MDP440 or MDP449
Co-requisite: EDP451
Credit Points: 12 **Contact Hours:** 3 per week

MDP442 AGRICULTURE CURRICULUM & TEACHING STUDIES B

Provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies and examines the roles of the teacher in the community and the profession.
Prerequisite: MDP440 or MDP449
Co-requisite: EDP451
Credit Points: 12 **Contact Hours:** 3 per week

MDP443 BIOLOGY CURRICULUM & TEACHING STUDIES B

Provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies and examines the roles of the teacher in the community and the profession.
Prerequisite: MDP440 or MDP449
Co-requisite: EDP451
Credit Points: 12 **Contact Hours:** 3 per week

MDP444 CHEMISTRY CURRICULUM & TEACHING STUDIES B

Provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies and examines the roles of the teacher in the community and the profession.
Prerequisite: MDP440 or MDP449
Co-requisite: EDP451
Credit Points: 12 **Contact Hours:** 3 per week

MDP445 EARTH SCIENCE CURRICULUM & TEACHING STUDIES B

Provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies and examines the roles of the teacher in the community and the profession.
Prerequisite: MDP440 or MDP449
Co-requisite: EDP451
Credit Points: 12 **Contact Hours:** 3 per week

MDP446 MARINE STUDIES CURRICULUM & TEACHING STUDIES B

Provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies and examines the roles of the teacher in the community and the profession.
Prerequisite: MDP440 or MDP449
Co-requisite: EDP451
Credit Points: 12 **Contact Hours:** 3 per week

MDP447 PHYSICS CURRICULUM & TEACHING STUDIES B

Provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies and examines the roles of the teacher in the community and the profession.
Prerequisite: MDP440 or MDP449
Co-requisite: EDP451
Credit Points: 12 **Contact Hours:** 3 per week

MDP448 JUNIOR SCIENCE CURRICULUM & TEACHING STUDIES C

This Curriculum C subject offers studies which enable appropriately qualified students to teach junior Science at lower levels of the secondary school. It allows the application of principles, skills and understandings which have been developed in the Curriculum A subject and which are expanded in the Curriculum B subject.
Credit Points: 12 **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.
Credit Points: 12 **Contact Hours:** 4 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.
Prerequisite: MDP450
Credit Points: 12 **Contact Hours:** 4 per week

MDP501 COMPUTER SYSTEMS

Algorithms; principals of structured programming; programming languages; hardware and operating systems.
Credit Points: 12 **Contact Hours:** 3 per week

MDP502 COMPUTERS IN EDUCATION

Range of possible uses of computers in education; impact of information technology on learning, curriculum development and teaching strategy; the computer as an administrative tool in education; social implications of the use of computers.
Credit Points: 12 **Contact Hours:** 3 per week

MDP503 INFORMATION SYSTEMS & EDUCATION

Information storage; types and models of information systems; knowledge representation; databases and database languages, social impact of information systems.
Credit Points: 12 **Contact Hours:** 3 per week

MDP504 COMPUTERS & SCHOOL ADMINISTRATION

Application of computers to educational administration; student information; databases, spreadsheets, textprocessing and graphics packages; timetabling and resource utilisation; financial accounting; office automation.
Prerequisites: MDP502, MDP503
Credit Points: 12 **Contact Hours:** 3 per week

MDP505 COMPUTER TOOLS FOR TEACHING

Application of computers to educational activities; use of software packages for: graphic presentation, text processing and numerical analysis; development of teaching materials.
Prerequisite: MDP501
Credit Points: 12 **Contact Hours:** 3 per week

MDP506 COMPUTER EDUCATION PROJECT

Types of educational and administrative problems which are and are not amenable to a computer-solution; factors unique to planning computer related activities; evaluation and publishing.
Prerequisites: MDP501, MDP502, MDP503
Credit Points: 12 **Contact Hours:** 3 per week

MDP507 TEACHING COMPUTER STUDIES: SECONDARY

The nature of computer studies at secondary school level; existing computer studies subjects; frames of reference for teaching computer studies; application to particular subject areas; relating computer studies to the total school curriculum.
Prerequisites: MDP501, MDP502
Credit Points: 12 **Contact Hours:** 3 per week

MDP508 COMPUTER IN PRIMARY EDUCATION

Computer-based techniques for teaching problem-solving strategies; application of word processing and other software packages to the language arts curriculum; the computer as an information resource for the classroom; teaching and learning with microcomputers; computers, society and education.
Prerequisite: MDP502
Credit Points: 12 **Contact Hours:** 3 per week

MDP509 MODELLING INFORMATION SYSTEMS

Knowledge representation; very high-level problem description and database languages; development of information processing systems.
Prerequisite: MDP503
Credit Points: 12 **Contact Hours:** 3 per week

MDP511 DIAGNOSTIC ASSESSMENT 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 the hand-held calculator and computer as aids to conceptual development and as practical tools; geometric and algebraic concepts across the curriculum; error analysis and diagnostic inventories; remedial strategies.

Credit Points: 10 **Contact Hours:** 3 per week

MDP515 MATHEMATICS CURRICULUM SPECIALISATION

Influential factors on the development and content of mathematics education; how students learn and apply mathematics; identification of effective curriculum models and teaching strategies for mathematics; classroom applications.

Prerequisite: CUP502

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

MDP516 DIAGNOSIS & EVALUATION IN MATHEMATICS EDUCATION

Learning difficulties in mathematics; action-research approach to problem solving and diagnosis; organising mathematics learning; utility of mathematics in real-life situations; formal and informal techniques for diagnosing mathematics difficulties; identifying and remediating specific learning errors.

Prerequisite and/or **Co-requisite:** MDP515

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

MDP517 FOUNDATIONS OF MATHEMATICS IN EDUCATION

The nature of mathematics and mathematical reasoning; topics in number theory; number patterns; group, field and equivalent relation properties; the nature of modelling; vectors; matrices, statistics, game and queuing theory; use of these topics to develop effective instruction; transformational approach to mathematics and its teaching.

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

MDP518 HISTORICAL TOPICS FOR MATHEMATICS EDUCATION

History of mathematical topics: counting, number systems, computation, measures, algebra, logic and geometry; the effect of the renaissance; origins and development of calculus; applications in the school classroom.

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

MDP519 MATHEMATICS, SCIENCE, TECHNOLOGY & SOCIETY

The rise of western mathematics and science, philosophical, historical and social background to the relationship between mathematics, science, technology and society; the relationship between the nature of technologies and the nature of society, the role of mathematics and science in technology.

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

MDP520 THINKING & LEARNING IN MATHEMATICS & SCIENCE

Concepts of thinking, learning and intelligence; modern theories on mathematical and scientific thinking; methods to promote thinking; designing effective mathematics and science learning experiences to foster thinking.

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

MDP525 SCIENCE CURRICULUM SPECIALISATION

The nature and importance of science in schools; theoretical principles of science curriculum development; future directions for science education; elements of program planning and evaluation, development of practical teaching sequences of classroom activities; learning difficulties; approaches to assessment.

Prerequisite: CUP502

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

MDP526 RESOURCING SCIENCE EDUCATION

The role of equipment in science; the role of computers and audiovisual equipment; the use of community resources such as museums; field trips; the role of print materials; the development of school programs to utilise resources.

Prerequisite: MDP525

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

MDP527 SCIENCE CONCEPT DEVELOPMENT & LEARNING

Diversity and unity in the biological and chemical world and the need for classification and organisation; biological and geological change; matter and links to these worlds; role of energy and how it changes; interrelationship and interdependence of the world; techniques for teaching these concepts.

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

MDP528 PERCEPTUAL & EXPERIMENTAL SKILLS IN SCIENCE EDUCATION

Sensation and perception and the science of light and sound and chemical stimuli; laboratory instrumentation in school; conducting experiments in the classroom; data collection, recording, communication and analysis; photography, art, graphing and other visual representations of data.

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

MEB010 DYNAMICS 1

Modelling methods and analysis; motion of relevant machines and mechanisms; fluids, transmissions and methods of measurements.

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.

Prerequisite: MEB010

Credit Points: 4 **Contact Hours:** 2 per week

MEB031 MATERIALS TECHNOLOGY

A structure property approach to orthotic materials; plastics; rubber; metals; composites; modes of failure; strength; creep; fatigue; resilience; selection procedures.

Credit Points: 8 **Contact Hours:** 2 per week

MEB035 SAFETY TECHNOLOGY 1

The importance and relevance of safety in the workplace; analysis of the accident process; the hazards associated wtih machinery and materials failure.

Prerequisites: BGB151, PHB250

Co-requisite: PNB211

Credit Points: 12 **Contact Hours:** 4 per week

MEB101 DESIGN 1
Mechanical design: power transfer; V-belt drives; chain drives; gear drives; selection of machine components.
Prerequisites: MEB121, CEB184
Co-requisites: MEB133, CEB185, MEB111
Credit Points: 8 **Contact Hours:** 3 per week

MEB111 DYNAMICS
Basic concepts of 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.
Credit Points: 7 **Contact Hours:** 3 per week

MEB121 ENGINEERING GRAPHICS
Principles of geometric drawing; orthographic projection; auxiliary views; sectioning; component detailing; surface developments; assembly drawing; CAD.
Credit Points: 6 **Contact Hours:** 3 per week

MEB133 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.
Credit Points: 6 **Contact Hours:** 1.5 per week

MEB171 INTRODUCTION TO MANUFACTURING
The role of manufacturing in the Australian economy; modern concepts in manufacturing systems design: the interrelationship between design, materials selection, manufacturing processes, marketing and information processing of products; choice of manufacturing technologies in relation to product quantity and quality.
Credit Points: 2 **Contact Hours:** 1 per week

MEB173 MANUFACTURING PRACTICE
The role of manufacturing in the Australian economy; modern concepts in manufacturing systems design; the interrelationship between design, materials selection, manufacturing processes, marketing and information processing of products; choice of manufacturing technologies in relation to product quality and quantity; hands-on experience in manufacturing processes; metrology, laboratory and systems modelling.
Credit Points: 7 **Contact Hours:** 3 per week

MEB200 INDUSTRIAL EXPERIENCE 1
Students should engage in at least five weeks employment, approved by the Head of School. For the employment to be recognised, students must submit an industrial experience record form completed by both student and the employer.
Contact Hours: 5 weeks

MEB230 MATERIALS 2
Solidification of ingots and castings; segregation; defects; properties of cast irons; steel and non-ferrous alloys. Properties of welded materials; arc characteristics; metal transfer; thermal diffusivity; cooling rates and transformations; carbon equivalents; hot and cold cracking; residual stresses and dilution effects. Properties of wrought materials; strain hardening; anisotropy, preferred orientation; defects; toughness. Microstructures and properties of high strength low alloy steels. Important non-ferrous alloys.
Prerequisite: MEB133
Credit Points: 6 **Contact Hours:** 3 per week

MEB231 MATERIALS 3
The structure and properties of polymers; composites and modern engineering ceramics; stress transformations; fibre and matrix properties; fibre density and orientation; rule of mixtures; modern engineering polymers; properties and applications; fracture toughness of polymers, ceramics and metals; linear elastic fracture mechanics; application to static and dynamic forces such as fatigue and stress corrosion cracking.
Prerequisite: MEB133
Credit Points: 6 **Contact Hours:** 3 per week

MEB250 THERMODYNAMICS 1
Basics of engineering thermodynamics; reversibility; first and second laws of thermodynamics; applications to heat engines; compressors; engine testing; particular emphasis given to single phase systems; field visit.
Credit Points: 6 **Contact Hours:** 3 per week

MEB251 THERMODYNAMICS 2
Steam plant; impulse and reaction turbines; gas turbines; refrigeration; field visit.
Prerequisite: MEB250
Credit Points: 6 **Contact Hours:** 3 per week

MEB270 INDUSTRIAL EXPERIENCE 1
Students should engage in at least five weeks employment, approved by the Head of School. For the employment to be recognised, students must submit an industrial experience record form completed by both the student and the employer.
Contact Hours: 5 weeks

MEB300 INDUSTRIAL EXPERIENCE 2
Students should engage in at least five weeks employment, approved by the Head of School. For the employment to be recognised, students must submit an industrial experience record form completed by both the student and the employer.
Contact Hours: 5 weeks

MEB313 MECHANICS 1
Kinematic and dynamic analysis of linkages and mechanisms; linkage synthesis applied to spatial mechanisms and robotics; the design and synthesis of cams; kinematic analysis of gears.
Prerequisites: MEB111, CEB184, CEB185
Credit Points: 6 **Contact Hours:** 3 per week

MATERIALS & MANUFACTURING PROJECT
The project exposes the student to self-regulated but supervised research on a specified topic associated with materials or manufacturing engineering. A survey of relevant literature and organised experimental work resulting in conclusions presented in a formal report.
Prerequisites: MEB230, MEB231
Credit Points: 6 **Contact Hours:** 3 per week

MEB361 FLUIDS 1
Fluid mechanics; forces in a fluid at rest and its action on submersed and floating bodies; manometry; pressure distribution in a liquid subjected to acceleration; different types of flow; momentum and energy equations; flow through orifices and vortex flow.
Prerequisites: MEB111, PHB132, MAB193
Credit Points: 6 **Contact Hours:** 3 per week

MEB362 THERMO-FLUIDS
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.
Credit Points: 7 **Contact Hours:** 3 per week

MEB370 MANUFACTURING SYSTEMS 1
Practical machining principles; mechanics of chip formation; speeds and feeds selection; practical applications in metrology; numerical control and parts programming; processing of plastics.
Prerequisite: MEB171
Credit Points: 6 **Contact Hours:** 3 per week

MEB381 DESIGN 2
Methodology for mechanical design: design of machine elements; design for strenth and fatigue; computer aided design.
Prerequisites: MEB121, MEB101, CEB184, CEB185
Co-requisite: MEB313
Credit Points: 6 **Contact Hours:** 3 per week

MEB402 INDUSTRIAL EXPERIENCE 3
Students should engage in at least five weeks employment, approved by the Head of School. For the employment to be recognised, students must submit an industrial experience record form completed by both the student and the employer.
Contact Hours: 5 weeks

MEB408 PROJECT A (MECHANICAL)
Investigate and present a formal report on a mechanical engineering problem; project may be industry based or arise from applied research.
Prerequisite: MEB339 **Co-requisite:** MEB489
Credit Points: 16 **Contact Hours:** 6 per week

MEB411 THEORY OF MACHINES
Balancing of mechanisms and rotors; gyroscopic effects in mechanisms, rotors and vehicles; gear trains, simple and epicyclic; friction and centrifugal devices such as clutches and governors.
Prerequisites: MEB111, CEB184, CEB185
Credit Points: 7 **Contact Hours:** 3 per week

MEB450 AIR CONDITIONING
Psychrometry; cooling load calculations; air conditioning systems; vapour compression refrigeration cycle analysis; multipressure systems; absorption refrigeration; field visit.
Prerequisites: MEB251, MEB462
Co-requisite: MEB550
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.
Prerequisite: MEB362
Credit Points: 6 **Contact Hours:** 3 per week

MEB462 FLUIDS 2
Fluid flow in closed conduits; rotodynamic machines; hydraulic transmissions; water hammer in pipes; dimensional analysis and dynamic similarity.
Prerequisite: MAB193
Co-requisites: MEB361, MAB493
Credit Points: 6 **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.
Credit Points: 6 **Contact Hours:** 3 per week

MEB464 FLUIDS 3
Boundary layer theory; a general approach to viscous flow via the Navier-Stokes and Reynold's equations; isentropic compressible flow; normal and oblique shock waves.
Prerequisites: MEB462, MAB893
Credit Points: 7 **Contact Hours:** 3 per week

MEB470 INDUSTRIAL EXPERIENCE 2
Students should engage in at least five weeks employment, approved by the Head of School. For the employment to be recognised, students must submit an industrial experience record form completed by both the student and the employer.
Contact Hours: 5 weeks

MEB471 MANUFACTURING ENGINEERING 1
Practical machining principles and mechanics of chip formation; economics of machining; practical applications in metrology; NC part programming.
Credit Points: 6 **Contact Hours:** 3 per week

MEB472 MANUFACTURING SYSTEMS 2
Fundamentals and applications of plasticity theory in the deformation of metals and plastics; concepts and applications of non-traditional machining and forming processes; introduction to automation and advanced manufacturing techniques.
Prerequisite: MEB370
Credit Points: 6 **Contact Hours:** 3 per week

MEB483 DESIGN 3
Design of mechanisms; welded structures; flexible components; journal bearings; computer aided design.
Prerequisites: MEB133, MEB111, MEB381, CEB102, CSB191
Co-requisites: MEB411, MEB231, MEB313
Credit Points: 7 **Contact Hours:** 3 per week

MEB489 MECHANICAL DESIGN PROJECT
A team approach to design: projects drawn from either the University or industry; application of theoretical and practical design principles; design, draw and supervise manufacture of project; presentation of formal report.
Prerequisites: MEB483, MEB610, MEB511, MEB773
Co-requisites: MEB772, MEB911
Credit Points: 7 **Contact Hours:** 3 per week

MEB500 SPECIAL TOPIC 1
A series of lectures and tutorials in subject areas which are of special professional relevance to the student's intended career path, or which may be available on occasions from visiting scholars.
Prerequisites: Students need to have achieved an appropriate level of preparation in the topic area concerned.
Co-requisites: Depend on the syllabus of the particular special topic offered.
Credit Points: 7 **Contact Hours:** 3 per week

MEB510 NOISE & VIBRATIONS

Introduction to noise and vibration measurements and instruments; free and forced vibration; normal mode vibration; Holzer's method; Mykelstad's method; noise levels; A-weighting; leq; SEL; noise dose and standards; sound power; absorption; the behaviour of sound relating to rooms, enclosures and partitions.
Prerequisites: PHB132, MAB493
Co-requisite: MAB893
Credit Points: 7 **Contact Hours:** 3 per week

MEB511 STRESS ANALYSIS

Analysis of strain and stress; strain-displacement relations; stress and strain transformation; 2 dimensional problems including curved bars, thick-walled cylinders and rotating discs; tension of prismatic bars and thin-walled sections; failure criteria and their applications; experimental strain measurement and analysis.
Credit Points: 7 **Contact Hours:** 3 per week

MEB531 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.
Prerequisites: MEB230, MEB231
Credit Points: 7 **Contact Hours:** 3 per week

MEB550 HEAT TRANSFER

Conduction: steady-state, 1 and 2 dimensions, unsteady-state; convection: boundary layers, forced, natural and radiation black and grey bodies, shape factors.
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.
Prerequisite: MEB362
Credit Points: 5 **Contact Hours:** 3 per week

MEB553 AERODYNAMICS 2

Transonic and supersonic flows; critical Mach numbers; quasi 1 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.
Prerequisite: MEB454
Credit Points: 6 **Contact Hours:** 3 per week

MEB571 MANUFACTURING ENGINEERING 2

Fundamentals and applications of plasticity theory in the deformation of metals and plastics; analysis of forming machine performance and selection of machine tools.
Credit Points: 6 **Contact Hours:** 3 per week

MEB600 INDUSTRIAL EXPERIENCE 3

Students should engage in at least five weeks employment, approved by the Head of School. For the employment to be recognised, students must submit an industrial experience record form completed by both the student and the employer.
Contact Hours: 5 weeks

MEB601 SPECIAL TOPIC 2

A series of lectures and tutorials in subject areas which are of special professional relevance to the student's intended career path, or which may be available on occasions from visiting scholars.
Prerequisites: Students need to have achieved an appropriate level of preparation in the topic area concerned.
Co-requisites: Depend on the syllabus of the particular special topic offered.
Credit Points: 7 **Contact Hours:** 3 per week

MEB610 MECHANICS 2

Introduction to mechanical frames and methods of analysis; investigation of the effects of static and dynamic loading upon frames and frame members.
Prerequisites: MEB411, MEB510, MAB493
Co-requisite: MEB511
Credit Points: 6 **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.
Prerequisite: MEB553
Credit Points: 5 **Contact Hours:** 3 per week

MEB640 AUTOMATION 1

Mathematical models of mechanical systems; system response to given inputs; modification of system parameters to obtain a more desirable response in closed loop.
Prerequisite: MAB493
Credit Points: 7 **Contact Hours:** 3 per week

MEB650 THERMODYNAMICS 3

Properties and testing methods of solid, liquid and gaseous fuels; combustion calculations; flue gas analysis; energy tariffs and audits; major applications of energy management, eg. buildings, process plant, compressed air systems, vehicle fleets; economic evaluation of energy projects; introduction and management of energy-saving programs; field visit.
Prerequisites: MEB550, MEB251
Credit Points: 6 **Contact Hours:** 3 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.
Prerequisite: MEB462
Credit Points: 6 **Contact Hours:** 3 per week

MEB670 INDUSTRIAL ENGINEERING 1

Project planning and control; plant location and layout; work study; design of experiments; linear programming applications.
Credit Points: 6 **Contact Hours:** 3 per week

MEB673 MANUFACTURING ENGINEERING 3

Advanced manufacturing technology; tool chatter and vibration; optical metrology; an introduction to CAM and robotics.
Prerequisite: MEB471
Credit Points: 7 **Contact Hours:** 3 per week

MEB680 ADVANCED MECHANICAL DESIGN

The application of modern materials and analytical techniques to mechanical design: case studies; statistical analysis of failures; application of material

science in design; fracture mechanics; computer aided optimisation techniques.
Prerequisites: MEB483, MEB230, MEB231, MEB411
Credit Points: 7 **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 undercarriage and flap systems; aircraft fuel systems; pressurisation systems; cockpit instrumentation and associated equipment; fundamental principles and operation of gyroscopes and accelerometers.
Credit Points: 6 **Contact Hours:** 3 per week

MEB701 SPECIAL TOPIC 3
A series of lectures and tutorials in subject areas of special professional relevance to the student's intended career path, or which may be available on occasions from visiting scholars.
Prerequisites: Students need to have achieved an appropriate level of preparation in the topic area concerned.
Co-requisites: Depend on the syllabus of the particular special topic offered.
Credit Points: 7 **Contact Hours:** 3 per week

MEB710 AUTOMATION 2
Use of computer packages in control system design (eg Matrix, 'X'); fundamentals of discrete time systems; instrumentation used in the acquisition and analysis of digital data (eg Labtech); programmable logic controllers.
Prerequisites: MEB640, MEB660
Credit Points: 7 **Contact Hours:** 3 per week

MEB740 MAINTENANCE MANAGEMENT & TECHNOLOGY
The 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.
Credit Points: 6 **Contact Hours:** 3 per week

MEB771 INDUSTRIAL ENGINEERING 2
Forecasting; manufacturing resources planning; scheduling; capacity planning; total quality control; modelling and simulation.
Prerequisite: MEB670
Credit Points: 6 **Contact Hours:** 3 per week

MEB772 ENGINEERING PROJECT APPRAISAL
Rational economic analysis of engineering projects at product level 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.
Prerequisites: MEB483, MEB339, MEB472
Co-requisites: MEB773, MEB670
Credit Points: 7 **Contact Hours:** 3 per week

MEB773 DESIGN FOR MANUFACTURING 1
Value analysis and principles related to product design; tolerance technology; design of jig and fixtures; cutting tools applicable for various machining operations including assembly.
Prerequisite: MEB171
Credit Points: 7 **Contact Hours:** 3 per week

MEB774 OPERATIONS MANAGEMENT
Method study and work measurements; job design, project planning and control; scheduling; capacity planning; resource planning; inventory control; total quality control.
Credit Points: 7 **Contact Hours:** 3 per week

MEB790 SPACECRAFT & SATELLITE DESIGN
Analysis techniques of space vehicle control including stabilisation and attitude 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; attitude control; libration dampers; accelerometers and station keeping systems; requirements for satellite and ground-station equipment design and operation.
Prerequisite: MEB692
Credit Points: 6 **Contact Hours:** 3 per week

MEB800 SPECIAL TOPIC 4
A series of lectures and tutorials in subject areas of special professional relevance to the student's intended career path, or which may be available on occasions from visiting scholars.
Prerequisites: Students need to have achieved an appropriate level of preparation in the topic area concerned.
Co-requisites: Depend on the syllabus of the particular special topic offered.
Credit Points: 7 **Contact Hours:** 3 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.
Prerequisite: MEB510
Credit Points: 7 **Contact Hours:** 3 per week

MEB900 MANUFACTURING PROJECT
The student is required to investigate in depth and present a formal report on a problem area taken from the full range of manufacturing engineering practices. Project may arise through investigation in applied research programs or specific topics from industry.
Credit Points: 12 **Contact Hours:** 3 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.
Prerequisites: MEB462, MEB550, MEB610, MEB511
Credit Points: 7 **Contact Hours:** 3 per week

MEB950 PROCESS PLANT DESIGN
Duct and industrial pipework system design; pressure vessel design methods; field visits.
Prerequisites: MEB251, MEB462
Co-requisite: MEB511
Credit Points: 7 **Contact Hours:** 3 per week

MEB960 FLUID SYSTEMS DESIGN
Analysis of selected fluid systems; performance characteristics of components; performance characteristics of systems.
Co-requisite: MEB464
Credit Points: 7 **Contact Hours:** 3 per week

MEB974 DESIGN FOR MANUFACTURING 2

Design of press tools, dies for forming operations and joining proceses; an overview of CAD in tool and die design.
Prerequisite: MEB571
Credit Points: 7 **Contact Hours:** 3 per week

MEB975 DESIGN OF MANUFACTURING SYSTEMS

Design and integration of flexible fixtures, palletisers and conveyors to flexible manufacturing systems (FMS); the use of robots and automatic guided vehicles in materials handling; total integrated manufacturing systems; selection of machine tools for CIM implementation.
Prerequisites: MEB976, MEB977
Credit Points: 7 **Contact Hours:** 3 per week

MEB976 COMPUTER INTEGRATED MANUFACTURING

Requirements for implementing CAD/CAM systems; component design using geometric modelling techniques; classification systems for part family formation and computer aided process planning; concepts and applications of flexible manufacturing systems (FMS).
Credit Points: 7 **Contact Hours:** 3 per week

MEB977 COMPUTER CONTROL OF MANUFACTURING SYSTEMS

Use of computers in machine tool control; computer control of production systems; control of robots; interfacing and networking.
Prerequisite: MEB976
Credit Points: 7 **Contact Hours:** 3 per week

MEB978 MANUFACTURING SYSTEMS ENGINEERING

Concepts and fundamentals of manufacturing systems analysis and production management; simulation and modelling of manufacturing systems.
Credit Points: 7 **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.
Prerequisites: EEB209, MEB411, MEB313, MEB483
Co-requisites: MEB510, MEB511
Credit Points: 7 **Contact Hours:** 3 per week

MEB981 DESIGN OF MATERIALS HANDLING SYSTEMS

Design of bulk material conveying and process plant, storage silos and bins, ground stockpiling systems, and the associated supporting structures.
Prerequisites: MEB483, MEB411, CEB184, CEB185, MEB111, MEB511
Credit Points: 6 **Contact Hours:** 3 per week

MEP173 QUALITY PLANNING

Quality systems, a succinct explanation; case studies; TQC and the deming philosophy; getting things into perspective; the business plan; quality management; continuous training and productivity improvement on the path to business success; quality assurance, its organisation and function; TQ principle; procedures and audits; everyone's responsibility; the role of the QA entity; organisation structure; the quality manual; standards and their applications; procedures preparation and format; the quality plan; inspection and test plans; design control; procurement to control; audit and corrective action; the quality manual assignment.
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.
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; callibration in the laboratory; uncertainty of measurements; the laboratory quality manual; assignments and laboratory audits.
Credit Points: 6 **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.
Prerequisite: MEP201
Credit Points: 12 **Contact Hours:** 3 per week

MEP371 RELIABILITY & MAINTAINABILITY

Reliability and maintainability; relationship between reliability and quality; relationship between 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 for reliability; computerised maintenance systems, economics and systems availability.
Credit Points: 6 **Contact Hours:** 3 per week

MEP473 QUALITY SYSTEMS & ASSESSMENT

Subject and class breakdown on the basis of syndicates for leading topic discussion; lectures on quality system requirements; policy and organisation; planning; purchasing; work instructions; inspection; corrective action; review and reorganise; application of topics to AS3900 – 1987/ISO9000 – 1987 to AS3904 – 1987/ISO9004 – 1987; application of topics to AS2990 – 1987; syndicate presentation; quality system requirements and assessment; the mechanics of step-by-step auditing.
Credit Points: 8 **Contact Hours:** 2 per week

MET101 ENGINEERING DRAWING

Engineering graphics for electrical engineering students: orthographic projection; preparation of circuit diagrams; other drawing relevant to electrical en-

gineering associates; computer aided drafting techniques.
Credit Points: 7 **Contact Hours:** 3 per week

■ **MET120 ENGINEERING DRAWING 1**
Lettering and linework; principles of third angle projection; orthographic projection; pictorial drawing; assembly drawing; sectional views; CAD.
Credit Points: 7 **Contact Hours:** 3 per week

■ **MET121 DRAFTING PRACTICE 1A**
Complements MET120: drawing mechanical engineering components; detailed exercises; CAD.
Co-requisite: MET120
Credit Points: 3 **Contact Hours:** 3 per week

■ **MET123 ELECTRICAL ENGINEERING DRAWING 1A**
Preparation of block diagrams: logic diagrams; circuit diagrams.
Co-requisite: MET101
Credit Points: 3 **Contact Hours:** 3 per week

■ **MET140 ENGINEERING MATERIALS 1**
General properties of materials; materials selection; service requirements and properties of ferrous and nonferrous metals and alloys; corrosion types and prevention; testing procedures; plastics, ceramics and other materials.
Credit Points: 8 **Contact Hours:** 3 per week

■ **MET170 MANUFACTURING TECHNOLOGY**
Basic methods of converting raw material into manufactured goods; an introduction to metrology; safety in the work place.
Credit Points: 8 **Contact Hours:** 3 per week

■ **MET171 TRADE TRAINING 1A**
Skill training in basic fitting and welding; the practical and applied aspects of fitting and welding skills.
Credit Points: 6 **Contact Hours:** 7 per week

■ **MET175 WORKSHOP (MECHANICAL) 1A**
An introduction to workshops and field training; the use of sketches; working drawings; materials; safety and legal requirements.
Credit Points: 3 **Contact Hours:** 3 per week

■ **MET201 APPLIED MECHANICS**
Statics; friction; velocity and acceleration; inertia and change of motion; dynamics of rotation; periodic motion; balancing; work and energy; impulse and momentum; strain and stress; fluids at rest and in motion.
Credit Points: 7 **Contact Hours:** 3 per week

■ **MET210 APPLIED MECHANICS 1**
Force and its effects; equilibrium; moments of forces; displacement, velocity and acceleration; inertia; friction and friction machines.
Credit Points: 8 **Contact Hours:** 3 per week

■ **MET220 ENGINEERING DRAWING 2**
Auxiliary views; sectional views; intersections; surface developments; CAD.
Prerequisite: MET120
Credit Points: 8 **Contact Hours:** 3 per week

■ **MET221 DRAFTING PRACTICE 2A**
Cam and gear geometry; spatial geometry; mechanical drive component selection; CAD.
Co-requisite: MET220
Credit Points: 3 **Contact Hours:** 3 per week

■ **MET223 ELECTRICAL ENGINEERING DRAWING 2A**
Printed circuit board layout; plant layout; transformer construction; single line diagrams; CAD.
Prerequisites: MET101, MET123
Credit Points: 3 **Contact Hours:** 3 per week

■ **MET250 THERMODYNAMICS**
Basic engineering thermodynamics concepts; systems; reversibility; first and second laws; working fluids; IC engine cycles and simple performance evaluations.
Credit Points: 6 **Contact Hours:** 3 per week

■ **MET271 TRADE TRAINING 2A**
Skill training in basic metal machining techniques; practical and applied aspects of turning, milling, shaping and surface grinding.
Credit Points: 6 **Contact Hours:** 7 per week

■ **MET310 APPLIED MECHANICS 2**
Work, power and energy; efficiency; introduction to simple machines; mechanical advantage and velocity ratio; hydrostatics and fluid friction; section properties; shearing force and bending moments; torsion.
Credit Points: 8 **Contact Hours:** 3 per week

■ **MET320 ENGINEERING DRAWING 3**
Geometric tolerancing; structural drafting; simplified dimensioning techniques; CAD.
Prerequisites: MET120, MET220
Credit Points: 6 **Contact Hours:** 3 per week

■ **MET350 PROCESS ENGINEERING**
Steam plant; positive displacement compressors; refrigeration plant; positive expanders; reciprocating engines; gas turbines.
Prerequisite: MET250
Credit Points: 7 **Contact Hours:** 3 per week

■ **MET352 AIR CONDITIONING & REFRIGERATION**
Ideal and actual refrigeration cycles including variation of operating conditions; performance of refrigeration equipment; psychrometry; cooling load estimation; air supply systems.
Prerequisite: MET250
Credit Points: 7 **Contact Hours:** 3 per week

■ **MET420 ENGINEERING DRAWING 4**
Specialist drafting techniques; electrical/electronic drafting; hydraulic/pneumatic diagrams; CAD.
Prerequisites: MET120, MET220
Credit Points: 7 **Contact Hours:** 3 per week

■ **MET421 MECHANICAL PROJECT 1A**
Report and presentation: projects selected from list; each project deals with a specific engineering environment.
Prerequisite: MET320
Credit Points: 3 **Contact Hours:** 3 per week

■ **MET433 ENGINEERING MATERIALS 2**
Properties and selection of advanced engineering materials.
Co-requisite: MET140
Credit Points: 8 **Contact Hours:** 3 per week

■ **MET475 WORKSHOP (MECHANICAL) 3A**
An introduction to workshop machines and practices.
Co-requisite: MET175
Credit Points: 3 **Contact Hours:** 3 per week

MET511 NOISE, STRESS & VIBRATION PRACTICE

Instrumentation used to measure vibrations, noise and stress; fundamental principles and equations related to such measurement; vibration isolation; noise standards; stress/strain transformations.
Co-requisites: MET210, MET310
Credit Points: 6 **Contact Hours:** 3 per week

MET560 THERMOFLUIDS

Fluid statics; fluid flow and measurement; dimensionless groups; elementary heat transfer by conduction, convection and radiation.
Credit Points: 8 **Contact Hours:** 3 per week

MET572 PRODUCTION PLANNING & CONTROL

Overview of production management; introduction to quality control; types of production; plant layout; scheduling and inventory control.
Prerequisite: MET171
Credit Points: 6 **Contact Hours:** 3 per week

MET573 CAD/CAM TECHNOLOGY

Introduction to the fundamentals of CAD/CAM and geometrical modelling; automated process planning; practical applications in CNC programming and economics of machine tools; the use of robots and principles of integrated manufacturing systems.
Credit Points: 7 **Contact Hours:** 3 per week

MET580 MACHINE ELEMENTS 1

Practical application of shear force and bending moment diagrams; selection of components from BHP manual; use of handbooks, codes and rolled steel section tables; bolted and welded connections; application of standard rolled steel sections; selection of shafts.
Prerequisites: MET210, MET120, MET220
Credit Points: 6 **Contact Hours:** 3 per week

MET600 MATERIALS FOR ELECTRICAL ENGINEERS

Properties of materials; materials selection; service requirements and properties of ferrous and nonferrous metals and alloys; corrosion types and prevention; testing procedures; plastics, ceramics and other materials.
Credit Points: 4 **Contact Hours:** 1.5 per week

MET601 MECHANICAL PLANT

Manufacturing processes and workshop practices; power station equipment (turbines and boilers); mining machinery; air conditioning equipment; fans and pumps; hoists; compressors; cranes; welding; heat transfer principles.
Credit Points: 3 **Contact Hours:** 1.5 per week

MET650 PLANT ENGINEERING 1A

A series of investigatory practical sessions related to design parameters, performance characteristics and plant maintenance practices associated with engineering plant systems; the machinery within the system and maintenance procedures.
Credit Points: 3 **Contact Hours:** 3 per week

MET680 MACHINE ELEMENTS 2

Selection and application of shafts and couplings; selection of spur, helical and worm reduction unit; determination of gear forces; selection of springs and brakes; curved beams.
Prerequisite: MET580
Credit Points: 7 **Contact Hours:** 3 per week

MET733 INDUSTRIAL METALLURGY

Techniques in casting; metallurgical advances in materials and their evaluation.
Prerequisite: MET433
Credit Points: 6 **Contact Hours:** 3 per week

MET782 JIG & TOOL DESIGN

Design of jig and fixtures for various machine operations and assembly; principles in design of blanking and forming dies; special forming techniques; dies used in blow and injection moulding; simple press capacity calculation.
Prerequisite: MET171
Credit Points: 6 **Contact Hours:** 3 per week

MET850 ENERGY MANAGEMENT

Tariff framing and objectives; energy and power losses in electrical and mechanical plant; equipment and buildings; identification of losses; energy audits; load forecasting and control.
Co-requisites: EET500, MET250,
Credit Points: 6 **Contact Hours:** 3 per week

MET920 COMPUTER AIDED DESIGN & DRAFTING

Computer based drafting: 2 dimensional drafting; design and solid modelling.
Prerequisites: MET120, MET220
Credit Points: 6 **Contact Hours:** 3 per week

MET933 INDUSTRIAL TRIBOLOGY

Maintenance and maintenance systems; types and mechanisms of wear; bearings and seals; friction; lubricants; oils, greases, solid lubricants; gas as a lubricant; application of lubricants.
Credit Points: 6 **Contact Hours:** 3 per week

MET940 MECHANICAL MEASUREMENTS

Instruments used to measure mechanical quantities; function and method of application; speed; acceleration; frequency; force; torque; pressure; level; flow; temperature.
Credit Points: 8 **Contact Hours:** 3 per week

MET960 FLUID POWER

Introduction to fluid power; compressed air systems; graphical symbols; cascade method of pneumatic system design; hydraulic components; hydraulic circuits.
Credit Points: 7 **Contact Hours:** 3 per week

MET961 FLUID MECHANICS

Characteristics of pumps; turbines; compressors and fans; fluid couplings and torque convertors. Friction losses in pipes and fittings. Analysis of complete pumping systems.
Prerequisite: MET560
Credit Points: 7 **Contact Hours:** 3 per week

MET971 INDUSTRIAL PRACTICE

Human resource management; work study; aspects of communication; leadership and teamwork; practical applications in planning and control; basic engineering metrology.
Credit Points: 7 **Contact Hours:** 3 per week

MJB100 MEDIA PRODUCTION

Focus on the still image and still images in juxtaposition in terms of the technical processes of producing images and the cultural and artistic processes of creating meaning with images; the processes of skills of photography; thematic presentation of images in sequence e.g. slide shows; application of computers and other electronic technologies in media production and presentation including: basic applications, com-

munications, graphics, animation, interactive videodisc, multimedia and computer-based education. Elementary computer skills are developed including the use of Microsoft Works.
Credit Points: 12 **Contact Hours:** 3 per week

MJB102 ADVANCED TEXT ANALYSIS
The nature of printed material, radio, film and television as forms of communication; the general range of media studies approaches: structuralism, psychoanalysis, linguistics, film theory and narrative theory; media production as texts; the factors determining their construction and how they influence their reception by audiences.
Prerequisite: Australian Media Institutions, and Literature and Communication, MJB104.
Credit Points: 12 **Contact Hours:** 3

MJB103 NEWS PRODUCTION
What is a media organisation?; media industries and media firms; social responsibilities of media companies; managing deadlines; planning and decision-making in the newsroom; leadership and motivation; news practice: radio, television, newspapers; case studies.
Prerequisites: MJB122, MJB138
Credit Points: 12 **Contact Hours:** 3 per week

MJB104 MEDIA INDUSTRIES & ISSUES
An introduction to the study of the mass media, with particular emphasis on Australian media industries: television, radio, the press, advertising, and film and video, from social, historical and industrial perspectives, and current issues facing these industries.
Credit Points: 12 **Contact Hours:** 3 per week

MJB105 FILM & SOCIETY
The Great Depression era, Roosevelt's new deal, and the ways in which 1930s genre films refracted these problems; post-war reconstruction and the re-affirmation of the family unit in 1940s films; the period of the House Committee on un-American activities and associated films; the films of the 1960s and their relation to various radical movements; the treatment of a range of social issues in American films of the 1970s and 1980s.
Prerequisite: MJB130
Credit Points: 12 **Contact Hours:** 3 per week

MJB106 SCREEN ADAPTION
The process of adaption of literary texts into feature films. Selective thematic and textual analysis of modern literature and film enables students to appreciate both forms as a expression of society. These analyses are related to the broader questions of representation and rhetoric of fiction in film.
Credit Points: 12 **Contact Hours:** 3 per week

MJB107 GENDER & THE MEDIA
Cultural gender representation of masculinity and femininity in a range of media texts; historical, sociological and economic contexts of gender ideology and cultural discourses such as motherhood, romance, the new woman; violence; women as creators of visual art and media texts; women as audience; gender and popular cultures.
Credit Points: 12 **Contact Hours:** 3 per week

MJB108 CREATIVE SOUND & IMAGE
Creation and manipulation of sound and image in the communication context; fundamentals of sound and sound recording: dynamic range, distortion, bias, equalisation, multitracking and mixing; fundamentals of light and colour; additive and subtractive colour, film animation, pixilation, computer graphics and computer animation.
Credit Points: 12 **Contact Hours:** 3 per week

MJB109 AUSTRALIAN TELEVISION
Australian cultural identity before television; key myths in Australia – the Anzacs; crime and corruption as part of the Australian way of life; political and social crisis in Australia; the Vietnam experience; the search for an independent national identity; the relationship with Britain, USA and Japan.
Credit Points: 12 **Contact Hours:** 3 per week

MJB110 ASIAN & LATIN AMERICAN CINEMA
A concentrated study of two of the following national cinemas: China, Japan, Brazil and Cuba. Chinese cinema from the perspective of the new cinema which emerged from the film makers Chen Kaige, Wu Tianming, Zhang Yimou and Tian Zhuangzhuang. Japanese cinema in relation to the dominance of a small number of film companies in the 1930s, the impact of World War II, and the output of film makers such as Mizoguchi, Ozu, Kurosawa, Ichikawa, Oshima and Itami. Cuban cinema within the context of the Cuban revolution. Brazilian cinema and the various phases of Cinema Nuovo, the influence of the Tropicalist movement, parody, the carnavalesque and the function of Embrafilme.
Credit Points: 12 **Contact Hours:** 3 per week

MJB113 FILM DRAMA PRODUCTION
Analysis of the process and effects of mediated communication; budgeting and production management; effective presentation methods; innovation and special media events; advanced production techniques. Students are required to work in crews to produce a significant film production.
Prerequisites: MJB129, MJB126
Credit Points: 12 **Contact Hours:** 3 per week

MJB114 FILM & VIDEO 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 and mini-series; achieving balance in above-the-line, below-the-line and marketing costs. Sources of finance: 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; script breakdowns, budgeting and production management.
Prerequisite: MJB113
Credit Points: 12 **Contact Hours:** 3 per week

MJB115 SUPERVISED PROJECT FILM & TV
The completion of a significant film or video production. Seminar presentation and discussion of each stage of production throughout the semester with progress reports made each week including the viewing of rushes and cut material.
Prerequisite: MJB114 and either MJB134 or MJB113
Credit Points: 12 **Contact Hours:** 3 per week

MJB116 FILM LANGUAGE & GENRE
Extending the structural and semiotic insights from the introductory theory subject, the processes by which films construct reality, and relates these to the

conventions and iconography of film genre; linkages between text, ideology and industry.
Prerequisite: COB113
Credit Points: 12 **Contact Hours:** 3 per week

MJB117 INTRODUCTION TO AUDIOVISUAL COMMUNICATION

An introduction to the theory and practice of audiovisual communication. Areas covered include planning: definition of operational objectives, analysis of audience characteristics, development of concept, budget, selection of appropriate mediated form; preparation: scriptwriting and storyboarding; basic production techniques; technology; how still and video pictures are seen; how sound is heard, recorded and replayed; how vision is recorded and played back; selection and operation of appropriate equipment; production of a significant slide-tape presentation.
Credit Points: 12 **Contact Hours:** 3 per week

MJB118 FUNDAMENTALS OF PHOTOGRAPHY

Historical development of the photographic arts, role of the photographer in society, the principle of visual perception 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. Fortnightly photographic assignments. Portfolio.
Credit Points: 12 **Contact Hours:** 3 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 course covers the evolution and theoretical background to reporting techniques in the areas of courts, politics, industrial relations, crime and finance.
Credit Points: 12 **Contact Hours:** 3 per week

MJB121 REPORTING PRINCIPLES

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.
Prerequisite: MJB120
Credit Points: 12 **Contact Hours:** 3 per week

MJB122 SUB-EDITING & 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.
Prerequisite: MJB132 or MJP100
Credit Points: 12 **Contact Hours:** 3 per week

MJB124 FEATURE WRITING

Students use the principles of reporting to produce newspaper and magazine articles that profile personalities, or that treat things, processes, events and places to exploit their human-interest news value.
Prerequisite: MJB121 or MJP100
Credit Points: 12 **Contact Hours:** 3 per week

MJB125 MODERN LITERATURE & FILM IN SOCIETY

An integrated study of contemporary literature and film and how both media provide an insight into topical issues of the day. Various critical approaches to literary and film texts and the concepts of genre, authorship and structure.
Prerequisite: COB144
Credit Points: 12 **Contact Hours:** 3 per week

MJB126 VIDEO PRODUCTION

Intensive introduction to the theory and practise of communication through video; criteria used in selection of the appropriate mediated form; principles of production; realising the intention of program, conversion of script to mediated form, roles and responsibilities, budgeting and production management; future directions in video; principles and practice of editing; pictorial composition, lighting, use of colour, camera control; sound and sound recording; use of special effects.
Credit Points: 12 **Contact Hours:** 3 per week

MJB127 NARRATIVE CONCEPTS

The inter-relationship between improved means: lenses, editing techniques, cameras and sound and how they increase the scope of film makers. Elements of the graphic arts, the novel, dramatic forms and social phenomena in the various national groupings. The subject is designed to assist students in choosing effective narrative styles for short films and especially dramas and dramatised documentaries by providing historical analysis of stylistic and technical developments of narrative film making.
Prerequisite: MJB108 or 8 subjects in a degree program.
Credit Points: 12 **Contact Hours:** 3 per week

MJB129 FILM & TELEVISION SCRIPTWRITING

Writing through analysis of such forms as features, documentaries and drama; indepth approach to writing through analysis of audiences and the industry; the writer's commitment to social responsibility; use of film in television and public relations; analysis of scripts and script requirements in contemporary markets.
Prerequisite: MJB127
Credit Points: 12 **Contact Hours:** 3 per week

MJB130 MEDIA TEXT ANALYSIS

The strategies applied in the analysis of texts are drawn from the following areas: new criticism and the traditional legacy; semiotics and structuralism/post-structuralism; marxism and contextual/historical approaches; feminism; psychoanalysis; reader-response approaches. The media texts chosen include films, television programs, newspaper articles and cartoons, photographs and advertisements. Some examples are also be drawn from literature.
Credit Points: 12 **Contact Hours:** 3 per week

MJB131 TELEVISION STUDIO/POST PRODUCTION

Television studio production and post production of news/current affairs, eorporate, documentary and drama; the roles of producer, director, art director, camera and audio operator, vision mixer, floor manager, technical director, production assistant and on-line editor.
Prerequisite: MJB134 or MJB113
Credit Points: 12 **Contact Hours:** 3 per week

MJB132 RADIO/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 seminar workshops. Strong emphasis is placed on current affairs knowledge.
Prerequisites: MJB126, MJB121
Credit Points: 12 **Contact Hours:** 3 per week

MJB134 VIDEO DOCUMENTARY PRODUCTION

Orientation to the history and development of documentary film and video and of the role of editing in the production; affective elements, the scope and limitations of creative editing, evolution of an editing plan, correlation of image, sound, music, pace, and tone in the total design; editing practise in workshops throughout the semester using materials provided on tape; production of a documentary or corporate video.
Prerequisites: MJB129, MJB126
Credit Points: 12 **Contact Hours:** 3 per week

MJB135 PROFESSIONAL MEDIA PRACTICE

The aim of this elective subject is to provide the student with 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 subject obtains reports from the student at regular intervals. The student is required to complete a progressive assessment program. The student's result is determined on the basis of reports, continuous assessment and the employer's report.
Prerequisite: MJB122 or MJB138
Credit Points: 12 **Contact Hours:** 3 per week

MJB137 PUBLIC AFFAIRS REPORTING

The role of the reporter in covering national and international politics, and major political issues is examined in depth. The range of topics covered include: the public's right to know, defamation restrictions, the constitution, federalism, defence, immigration and multiculturalism, health, welfare and education, the environment, science and industrial issues, economics and finance reporting.
Prerequisite: MJB124
Credit Points: 12 **Contact Hours:** 3 per week

MJB138 RADIO/TELEVISION JOURNALISM 2

Philosophy and formulation of radio and television current affairs, anchor techniques, radio and television news production using computers.
Prerequisite: MJB132
Credit Points: 12 **Contact Hours:** 3 per week

MJB139 JOURNALISTIC ETHICS & ISSUES

Students are challenged on journalistic practices and debate options and choices. The Australian Journalist's Association code of ethics is studied in the context of ethical systems and journalistic practice.
Credit Points: 12 **Contact Hours:** 3 per week

MJB140 THE MEDIA & SOCIETY

A range of theoretical positions on mass media study; the political economy of the media; the role and meaning of advertising, the function of news; 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; popular culture of the media.
Prerequisite: MJB130 (or equivalent)
Credit Points: 12 **Contact Hours:** 3 per week

MJB141 FILM LANGUAGE

The processes by which meaning is constructed in film. This is first studied in relation to the question of form in film, and attention is given to how films, both narrative and non-narrative, may be structured. Then, 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, distance, movement, animation, and special effects, editing, and sound.
Prerequisite: MJB130
Credit Points: 12 **Contact Hours:** 3 per week

MJB142 FILM & SOCIETY

The Great Depression era, Roosevelt's new deal, and the ways in which 1930s genre films refracted these problems; post-war reconstruction and the reaffirmation of the family unit in 1940s films; the period of the House Committee on un-American activities and associated films; the films of the 1960s and their relation to various radical movements; the treatment of a range of social issues in American films of the 1970s and 1980s.
Prerequisite: MJB130
Credit Points: 12 **Contact Hours:** 3 per week

MJB143 AUSTRALIAN FILM

Tthe trend towards period films and the construction of a national identity in the 1970s compared with earlier periods; the representation of women and its relationship with the growth of the women's movement; the depiction of Aborigines in recent films compared with earlier portrayals; images of masculinity; low budget features and independent film makers; images of adolescence in recent films.
Prerequisite: MJB130
Credit Points: 12 **Contact Hours:** 3 per week

MJB144 EUROPEAN CINEMA

The cinema of two of the following countries: Italy, Germany, France. Italy: the epic films of the silent period, Fascist films, neo-realism, and the work of Antonioni, Visconti, Rossellini, De Sica, Fellini, Olmi and Bertolucci. Germany: expressionism, Nazi cinema, the influence of the war on film content and production, and the New German cinema, including the work of Herzog, Fassbinder, Wenders, Schoendorf and Kluge. France: film impressionism and the avant-garde movements of the 1920s, poetic realism, the New Wave, and post 1968 cinema.
Credit Points: 12 **Contact Hours:** 3 per week

MJB146 AUSTRALIAN DOCUMENTARY FILM

The newsreel in Australia: Fox Movietone News and Cinesound Review; the role of Film Australia, alternative documentary in the work of the Waterside Workers Film Unit; the impact of television on documentary film making; the Sydney Women's Film Group; radical film makers, Bradbury, Zubrycki and Pilger.
Credit Points: 12 **Contact Hours:** 3 per week

MJB147 FILM GENRES

Genre conventions: the narrative patterns, styles, and iconographies which govern the production and reading of genre films; the evolution of genres in relation

to social change; the relationship with the Hollywood studio system, including economic and ideological constraints; the conventions of specific genres such as the western, the musical, horror and science fiction films, film noir, and the family melodrama. Three genres are selected for special study.
Credit Points: 12 **Contact Hours:** 3 per week

MJB149 FILM HISTORY
The development of the Hollywood classical continuity style; notions of realism and their relation to French poetic realism of the 1930s, neo-realism in post war Italy, and the kitchen-sink films of Britain in the 1960s; modernism; expressionism and film noir; the impact of wide-screen formats; the various 'new waves' of the 1950s and 1960s; and the impact of new technologies and information systems on film.
Credit Points: 12 **Contact Hours:** 3 per week

MJN100 COMMUNICATION & SOCIETY
Contemporary communication and media theory, developing the theoretical introduction offered in MJP101. Subject content proceeds in a detailed survey mode, and includes contemporary political economy of the media, feminist cultural theory, textual and audience studies, media and cultural studies, post-modernism and cross-cultural communication. These studies of contemporary theory find preliminary application in some relevant research areas in the mass media, popular culture and the new media.
Credit Points: 12 **Contact Hours:** 3 per week

MJN101 COMMUNICATION & CULTURE
The applications of critical communication and media theory to a range of research topic areas: the growth of written mass culture/popular literature; the relationship between language and reality formed by language, rather than vice versa; the modern debate about mass culture versus high culture; literary journalism; film, television, and the other mass media. Students are expected to demonstrate advanced competence in the application of media and critical theory to topic areas.
Credit Points: 12 **Contact Hours:** 3 per week

MJN103 AUSTRALIAN COMMUNICATION CONTEXTS
Analysis of specific aspects of the interaction between mass media, its institutions and history, at an advanced level, the histories and contemporary configurations of Australian media industries: telecommunications, television, film, radio, advertising, print. The subject is designed to complement MJN101, with its emphasis on the analysis of media context.
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.
Credit Points: 12 **Contact Hours:** 3 per week

MJP101 COMMUNICATION THEORY 2
Builds on media studies theory that students have learned in three subjects with media studies components in the undergraduate degree by teaching an advanced introduction to critical media theory (7 weeks). This also leads into the media studies strand of the masters degree. Applications to film, television, print, radio, and advertising. The second segment of the subject (7 weeks) focuses on behavioural or process theory. Topics include: the process and effects of mass communication; systems thinking; role of the media in society.
Credit Points: 12 **Contact Hours:** 3 per week

MJP102 COMMUNICATION POLICY ENVIRONMENT
The public policy environment associated with communication practice and processes; current issues; the participating and critical views. A study of the public policy process in selected countries with special emphasis on Australian communication policy. Social, legal, political and technical environments; current and major issues, and the differing approaches to communication policy.
Credit Points: 12 **Contact Hours:** 3 per week

MKB102 ADVANCED MARKETING LOGISTICS
The application of computer based models to distribution systems. Case studies of commodity markets in Australia. Advanced transportation modelling.
Prerequisite: MKB108 **Co-requisite:** MKB136
Credit Points: 12 **Contact Hours:** 3 per week

MKB108 MARKET PRACTICES
Quantitative marketing practices in the areas of: inventory control; queuing; LP programming; market simulation; causal regression analysis; market applications.
Prerequisites: MKB140, EPB109
Credit Points: 12 **Contact Hours:** 3 per week

MKB112 RESEARCH METHODS
The main traditions and methods in research, including primary and secondary, qualitative and quantitative research.
Credit Points: 12 **Contact Hours:** 3 per week

MKB116 PRINCIPLES OF ADVERTISING
A brief history of advertising; structure of the industry; functions and objectives; campaign planning; budgeting; elementary media planning; creative functions; elementary copywriting; principles of advertising.
Prerequisite: MKB140 and Research Methods
Credit Points: 12 **Contact Hours:** 3 per week

MKB117 PR CAMPAIGNS
This is a specialist public relations subject examining strategies to relate an institution or individual to the community through comprehensive public relations programs. These may include fundraising, special events, and corporate sponsorships. The subject is designed to increase intellectual depth of understanding and give students practical experience in problem solving and the implementation of actual community relations programs for various organisations.
Prerequisites: MKB120 and MKB133
Credit Points: 12 **Contact Hours:** 3 per week

MKB118 ADVERTISING COPYWRITING
Target audience definition; copywriters and their functions, copy platforms; copy rationales; positioning; creative thought processes; advertising writing theories and styles; layout principles; newspaper copywriting; magazine copywriting; direct mail copywriting; outdoor copywriting; basic print production.
Prerequisite: MKB116
Credit Points: 12 **Contact Hours:** 3 per week

MKB120 PR WRITING & EDITING

The function of media other than mass media. Public relations practitioners work in government, institutional and corporate environments which deal with internal and external audiences through a wide range of written materials as well as speechmaking. Writing and editing newsletters are covered through workshops. The role of the editor is emphasised to give an understanding of the importance of communication to achieve corporate objectives. Of equal importance is an understanding of techniques to write, edit and present speeches effectively.
Prerequisite: MKB129
Credit Points: 12 **Contact Hours:** 3 per week

MKB122 ADVERTISING REGULATION & ETHICS

The various laws, codes and regulations which apply to advertising in Australia; the codes of ethics of the different institutions of advertising; recent and current examples of contentious advertisements; application of the principles and ethical standards covered.
Prerequisite: MKB116
Credit Points: 12 **Contact Hours:** 3 per week

MKB123 PUBLICATION MANAGEMENT

Examination of the requirements for communicating in print and managing this process. It analyses the steps involved in design and production, focusing on management and liaison skills. The subject offers students desktop publishing skills which are required for assignments, and the scope to produce a real life brochure for a client.
Prerequisite: MKB129
Credit Points: 12 **Contact Hours:** 3 per week

MKB124 PUBLIC RELATIONS PRINCIPLES

An introduction to the concepts and practice of public relations; the role and functions of public relations, its history, career paths, professional/ethical responsibilities, corporate public relations, public relations consultancies, the process of public relations, concepts of public opinion, persuasion and communication strategies. This subject offers a theoretical foundation for students to equip them to better understand and practise the public relations skills emphasised in later subjects.
Credit Points: 12 **Contact Hours:** 3 per week

MKB125 MEDIA PLANNING

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, media and the computer.
Prerequisite: MKB116
Credit Points: 12 **Contact Hours:** 3 per week

MKB126 ADVERTISING MANAGEMENT

Theories of mass communication, psychology, empirical research and market planning in the context of the advertising management function.
Prerequisite: MKB118, MKB122 and MKB125 or MKB116 and 4 Marketing Subjects.
Credit Points: 12 **Contact Hours:** 3 per week

MKB127 ADVANCED ADVERTISING

Expansion and addition of theoretical perspectives and skills gained in the prerequisite. 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.
Prerequisite: MKB118 or Media Strategy
Credit Points: 12 **Contact Hours:** 3 per week

MKB128 DIRECT RESPONSE ADVERTISING

Principles and practice of direct response advertising in its various forms; ethical considerations against a background of Australian societal norms.
Prerequisite: MKB126 or MKB157
Credit Points: 12 **Contact Hours:** 3 per week

MKB129 PUBLICITY & 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, writing style and publicity planning.
Prerequisites: MKB120, MKB124
Credit Points: 12 **Contact Hours:** 3 per week

MKB130 PUBLICITY & PROMOTION – ELECTRONIC

The development of production skills in video as they apply to public relations in organisations. Students produce a complex video news magazine for a client organisation. This includes scripting, presenting, studio management, special effects, graphics, field operation of video equipment and video editing, techniques for producing community service announcements.
Prerequisites: MKB126, MKB129
Credit Points: 12 **Contact Hours:** 3 per week

MKB131 ADVERTISING CAMPAIGNS

Students draw together and apply all of the professional knowledge and skills gained throughout their degree studies. Application of this to problems or cases set by lecturers and practitioners. The accent is on development and application.
Prerequisite: MKB126
Credit Points: 12 **Contact Hours:** 3 per week

MKB132 GOVERNMENT & FINANCIAL RELATIONS

Current 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 creations of communication strategies designed to solve specific problems.
Prerequisites: MKB133, EPB124
Credit Points: 12 **Contact Hours:** 3 per week

MKB133 PR CONSULTING & MANAGEMENT

The management of public relations practice including research, budgets, consultancies and people. It is tailored for students who have completed most of the public relations strand and is designed as advanced level preparation for employment in the field. The subject offers input from specialist guest lecturers, who are either experienced practitioners or specialists in a particular area. Students prepare and present a group submission as part of the subject.
Prerequisites: MKB123, MKB120
Credit Points: 12 **Contact Hours:** 3 per week

MKB136 MARKETING LOGISTICS

Distribution strategies and techniques and the activities that facilitate product flow: distribution and level strategies; inventory costs and control; efficient raw product mix and the application of linear programming; transhipment models; allocation efficiency; customer queuing.
Prerequisites: MKB140, EPB109
Credit Points: 12 **Contact Hours:** 3 per week

MKB137 COMPUTER APPLICATIONS IN MARKETING

Techniques in market research; univariate and bivariate analysis; nonparametric statistics; ANOVA; the multivariate techniques common to marketing research; dependence methods such as multiple regression, MANOVA, multiple discriminant analysis and conjoint measurement; interdependence methods including factor analysis, cluster analysis and multidimensional scaling.
Prerequisite: Business Methodology
Co-requisite: MKB151
Credit Points: 12 **Contact Hours:** 3 per week

MKB139 MARKETING

Marketing: the definition of marketing including its fit into the strategic plans of a firm or institution, either profit or non-profit; full explanation of the 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.
Credit Points: 12 **Contact Hours:** 3 per week

MKB140 PRINCIPLES OF MARKETING

The role of marketing and its importance in contemporary organisations. Introduction to marketing decision areas: the marketing concept; understanding consumer behaviour and preferences, marketing research and marketing information systems; market segmentation and planning, strategy and control; the components of the marketing mix, viz. product planning, management and development; pricing methods and strategies; the elements of promotion, including personal selling, advertising, publicity and sales promotion, and distribution.
Credit Points: 12 **Contact Hours:** 3 per week

MKB141 MARKETING MANAGEMENT

Contemporary marketing concepts linked to strategic applications; market segmentation, product positioning, product portfolio analysis, marketing strategies in key areas such as product development, promotion, distribution and pricing.
Prerequisite: MKB140 or MKN106
Credit Points: 12 **Contact Hours:** 3 per week

MKB142 CONSUMER BEHAVIOUR

Internal and external influences on the individual consumer including motivation, perception, learning, attitudes and social class, culture, reference groups, communicating and market segmentation, and the consumer decision process.
Prerequisite: MKB140 or MKN106
Credit Points: 12 **Contact Hours:** 3 per week

MKB143 EXPORT MANAGEMENT

The role of government including need to export; export incentives; methods of exporting, including agents and merchants, consultants and overseas organisations; bases for export sales, including terminology and exporter's responsibilities; export documentation; finance of export trade, including methods of payment, finance for export transactions and foreign exchange transactions; export finance insurance corporation; modes of international transport; marine insurance; quoting for export, including pricing policies, export costs, marketing and packaging and quotations. A major case study is included as part of the study program.
Credit Points: 12 **Contact Hours:** 3 per week

MKB144 SALES MANAGEMENT

The range of analytical activities performed in the design and management of the selling function of the organisation. These activities include sales forecasting, sales force size, territory management, selling logistics, sales force motivation, sales negotiation. The subject combines theory and practice and uses a case study approach to consolidate the learning process.
Prerequisite: MKB140 or Marketing Methods and Practice
Credit Points: 12 **Contact Hours:** 3 per week

MKB145 RETAILING MANAGEMENT 1

Introduction to the techniques, concepts and analytical issues that are involved in retailing management. The dynamics of the retail system are examined from a strategic marketing viewpoint and include a basic appreciation of retail customer behaviour and retail information needs. The analysis of store location and the evaluation of retail trade areas and stores siting determinants are given detailed attention along with store layout and design. Elements of merchandising, franchising and promotion are also examined.
Prerequisites: MKB140, MKN106
Credit Points: 12 **Contact Hours:** 3 per week

MKB146 SERVICES MARKETING

The special characteristics of services and possible strategies to deal with those characteristics; the nature and classification of services; the differences between services and products and their implications for the marketing/customer mix and for marketing strategy; the relationship of the service organisation with its customers; the management of product support services; the concept of productivity for services, including the management of demand and supply; the search for service quality and consistency, including the issue of standardisation versus customisation.
Prerequisite: MKB140 or MKN106
Credit Points: 12 **Contact Hours:** 3 per week

MKB147 RETAILING MANAGEMENT 2

Development of a strong grounding in those retailing activities that comprise the merchandising function of the different types of retail stores including the distributors of durable consumer goods from the large supermarket or department store to the smallest corner store. Covers those topics associated with the merchandising of retail products: forecasting customer demand, planning, promotions, as well as the managerial control of buying and stocking merchandise.
Prerequisite: MKB145
Credit Points: 12 **Contact Hours:** 3 per week

MKB148 MARKETING DECISION MAKING

The evaluation of marketing policy and strategy, consumer and organisational buying behaviour, market segmentation and demand assessment, product, price, promotion, distribution and selling decisions. These models lead to the study of an integrated decision

support system for marketing management. Application to real-life examples is stressed throughout, with case studies and experiential exercises providing the learning framework.
Prerequisite: MKB140 or MKN106
Credit Points: 12 **Contact Hours:** 3 per week

MKB149 INTERNATIONAL MARKETING
The nature and practice of international marketing. It assumes a familiarity with general marketing management and builds on this knowledge to develop insight into and understanding of the peculiar nature of international marketing management and the problems of marketing within a number of different national markets. The course is managerial in the sense that it focuses on the problems and decisions facing managers of international marketing in business enterprises.
Prerequisite: MKB140 or MKN106
Credit Points: 12 **Contact Hours:** 3 per week

MKB151 MARKETING RESEARCH
This subject has three main purposes: to emphasise the processes most suitable to marketing research, both qualitative and quantitative; to undertake a marketing research project whereby students determine the most suitable way of gathering information, undertake the research, and finally, present the results; to develop the ability, as marketing managers, to choose, use, and manage market research wisely, whether dealing with a consultancy firm or an internal marketing research department. Areas to be covered in both the theoretical and practical aspects of the subject include: problem formulation; research design and sources of information; design and forms of data collection; analysis and interpretation of data; the marketing research report and presentation.
Prerequisite: MKB141
Credit Points: 12 **Contact Hours:** 3 per week

MKB152 PROMOTIONAL STRATEGY
The marketing promotional mix and its relationship with the marketing mix, the structure of marketing communications; the environmental framework of promotion practice; the media of marketing communications; the planning and control of marketing communications.
Prerequisite: MKB140 or MKN106
Credit Points: 12 **Contact Hours:** 3 per week

MKB153 PROFESSIONAL MARKETING PRACTICE
With the approval of the lecturer involved, the students undertake a preferred study program within the marketing framework, eg. some particular area of the marketing mix. This study program requires students to undertake a project or internship with a suitable company, where they actively work on a part-time basis. The program is aligned as closely as possible to the preferred area of study. Students are required to submit a number of reports reflecting the theoretical concepts learned and the application to their job experience.
Prerequisite: MKB141
Credit Points: 12 **Contact Hours:** 3 per week

MKB154 DISTRIBUTION MANAGEMENT
Physical distribution, warehouse location and management, choice of transportation modes.
Prerequisite: EPB109 or Business Statistics
Credit Points: 12 **Contact Hours:** 3 per week

MKB155 STRATEGIC MARKETING
The capstone of the marketing course; it reviews the state of the art in marketing strategy and current thoughts and concepts in marketing strategy formulation and focuses on the formulation of marketing strategy, a task undertaken in most companies at the strategic business unit level.
Prerequisite: MKB141
Credit Points: 12 **Contact Hours:** 3 per week

MKB158 TELEMARKETING
As direct marketing is a growth area it is essential that students understand the fundamentals of effective telemarketing. There is heavy emphasis on practical work in this subject. Students are taught practical skills in how to set up a telemarketing centre and how to conduct a structured telemarketing campaign. Practioners and field visits provide students with the necessary real world experience.
Prerequisite: MKB128
Credit Points: 12 **Contact Hours:** 3 per week

MKB159 DIRECT MARKETING CAMPAIGNS
Students examine and analyse contemporary direct marketing and integrated marketing practice and present their findings in seminars. They plan and execute direct marketing campaigns as briefed by practitioners. Recommendations are presented to those practitioners for comment. Skills in appropriate areas are advanced to fully operative level.
Prerequisite: MKB128 and MKB158
Credit Points: 12 **Contact Hours:** 3 per week

MKB160 MARKETING
The role of marketing and the importance for the industrial design profession; the marketing mix of product, price, promotion and distribution, and marketing strategies for success.
Credit Points: 4 **Contact Hours:** 2 per week

MKB161 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.
Credit Points: 7 **Contact Hours:** 3 per week

MKN100 ADVANCED QUANTITATIVE RESEARCH METHODS
Conceptual foundations of research design; research methodologies; data sources; methods of observation and data collection; data analysis; evaluation.
Prerequisite: MKB108. A high level of performance in subjects in statistics and applied statistics at undergraduate level is assumed. Knowledge of computing and use of computer packages is highly desirable.
Credit Points: 12 **Contact Hours:** 3 per week

MKN101 BUSINESS FORECASTING TECHNIQUES
Exponential and moving average techniques; decomposition models; seasonal regression models; stochastic models; stationary and non-stationary

models; model identification and estimation; diagnostic checking; transfer functions.
Prerequisite: MKN101
Credit Points: 12 **Contact Hours:** 3 per week

MKN102 BUSINESS LOGISTICS
The integrated physical distribution management concept; customer service; inventory policy, analysis and decision making; selection of distribution channels, channel design and strategy; transport systems and model choice; modelling the facility location, optimising size, siting and network; logistics and pricing; organisational implementation of marketing logistics concepts.
Prerequisite: MKN101
Credit Points: 12 **Contact Hours:** 3 per week

MKN103 ADVANCED MARKET SIMULATION
The economics of risk and uncertainty; quantitative estimation of demand and costs; market structures and pricing practices; multi-product pricing; transfer pricing; capital budgeting.
Credit Points: 12 **Contact Hours:** 3 per week

MKN104 THESIS
Synthesis and application of studies undertaken in the course. Topic may be taken from any aspect of marketing science. Formulation of thesis undertaken in conjunction with supervisor and other academic staff.
Credit Points: 144

MKN105 DECISION SUPPORT SYSTEMS
Timely and accurate information is a management resource, and computers can process much of this information to augment and extend a manager's capacity. This subject provides an understanding of the importance, variety and value of both quantitative and qualitative decision support systems, including a significant emphasis on computer-based information systems such as data bases and expert systems from the point of view of systems users rather than of specialist system analysis.
Credit Points: 12 **Contact Hours:** 3 per week

MKN106 MARKETING METHODS & PRACTICES
The role of marketing and how marketing fits into the strategic processes of firms and institutions; key marketing decision areas including the marketing concept, marketing research, consumer behaviour, marketing segmentation and positioning, product policy, pricing, promotion and distribution.
Credit Points: 12 **Contact Hours:** 3 per week

MKN107 ADVANCED MARKETING MANAGEMENT
An advanced study of marketing, marketing systems and market management decision processes within the contemporary structure of social cultural, political, economic, business and organisational environments. Advanced marketing theory from both strategic and tactical perspectives with emphasis on the relationship between marketing and corporate policy as well as both the internal and external social and behaviourial and motivational factors that facilitate marketing exchange opportunities. Marketing issues associated with both profit and non-profit organisations and the relevance of marketing theory to these institutions, including the developing area of international marketing.
Credit Points: 12 **Contact Hours:** 3 per week

MKP100 FUNDRAISING PRINCIPLES
The fundamentals of fundraising; the preparation of the case statement; planning methods; the various techniques of fundraising. Introductory segments on public relations, advertising, marketing and management. Major topics include: philosophy of fundraising, its role in society, budget, fundraising, major gift and capital campaigns, planned giving, researching and establishing prospect bases, procedures of solicitation, team building of boards and volunteers, role of foundations.
Credit Points: 12 **Contact Hours:** 3 per week

MKP101 FUNDRAISING CAMPAIGNS
Practical experience in planning and implementing a fundraising campaign: planning a complete fundraising program; defining relevant constituencies and pinpointing appropriate vehicles for linking to these target markets; budgeting and managing campaign elements; working successfully with boards and volunteers where appropriate; evaluating fundraising efforts. Students undertake a group project in the form of the analysis of a fundraising program. Topics include: strategic planning, management, financial issues, ethics and evaluation techniques.
Credit Points: 12 **Contact Hours:** 3 per week

NSB114 CLINICAL PRACTICE 1A
This subject focuses on the acquisition of skills which are fundamental to nursing practice. Students practise communication skills, health assessment skills and selected technical skills in both University (on-campus) and clinical (off-campus) laboratories. The clinical laboratory experiences in this subject take place in a variety of settings which include various types of health care facilities, community facilities, domiciliary nursing services, occupational health services, disability services and outpatients clinics.
Co-requisite: NSB151
Credit Points: 8 **Contact Hours:** 6 per week

NSB115 CLINICAL PRACTICE 1B
This subject provides students with the opportunity to consolidate the skills which they have acquired during the preceding clinical subject, and aims at the achievement of a specific level of clinical competence. The learning experiences are conducted in the clinical (off-campus) laboratory, and the settings are as previously described.
Co-requisite: NSB114
Credit Points: 8
Contact Hours: 60 per 2 week block following semester

NSB151 FOUNDATIONS OF NURSING PRACTICE 1
An introduction to the major concepts which are fundamental to nursing practice. Topics include: the nature of individuals, families and communities, the impact of the environment on health, the concept of health, and the relationship between nursing and health care. The significance of a conceptual approach to nursing practice is explored.
Credit Points: 8 **Contact Hours:** 3 per week

NSB152 FOUNDATIONS OF NURSING PRACTICE 2
Further development of the concepts of people, environment, health and nursing in order to facilitate an understanding of the theoretical basis of nursing practice. Topics include: human needs from a holistic perspective, human resources which can be utilised in the attainment of health, the roles of the nurse as a

clinician, patterns of nursing care delivery, health care in Australia, and the concept of the multidisciplinary health care team.
Prerequisite: NSB151
Credit Points: 8 **Contact Hours:** 3 per week

NSB201 PRINCIPLES OF PATIENT CARE

This introductory subject emphasises the ethical, legal and clinical accountability of the radiographer for safe patient care. The subject aims to develop in radiography students an awareness of their responsibilities in protecting patients and promoting their well-being.
Credit Points: 4 **Contact Hours:** 2 per week

NSB207 NURSING & THE INDIVIDUAL

The subject is designed to deepen and broaden the clinical decision making skill base of students who already have a foundation in nursing and related sciences from previous studies. It explores the significance of conceptual models for clinical decision-making, provides physical and psychosocial assessment skill practice, explores the concept of nursing diagnosis and associated core planning, and highlights the use of research in support of clinical decisions.
Credit Points: 8 **Contact Hours:** 3 per week

NSB214 CLINICAL PRACTICE 2A

This subject provides students with the opportunity to continue the development of skills which are fundamental to nursing practice. Students practise applied communication skills, nursing diagnosis and care planning skills, and further selected technical skills in both University (on-campus) and clinical (off-campus) laboratories. The clinical laboratory experiences in this subject take place in a variety of settings which include hospitals, nursing homes and palliative care facilities.
Co-requisites: NSB114, NSB115, NSB151, NSB152
Credit Points: 8 **Contact Hours:** 3 per week

NSB215 CLINICAL PRACTICE 2B

This subject provides students with the opportunity to consolidate the skills which they have acquired during the preceding subjects, particularly NSB214. It aims at the achievement of an increasing level of competence in clinical situations. The learning experiences are conducted in the clinical (off-campus) laboratory and the settings are as described for the preceding clinical practice subject.
Co-requisites: NSB114, NSB115, NSB214
Credit Points: 8
Contact Hours: 60 per 2 week block following semester

NSB301 NURSING & BIOPHYSICAL HEALTH 1

The effects of selected pathophysiologic processes on the meeting of human needs; topics include: the assessment and nursing diagnosis of gas exchange, circulation, hydration, physical comfort and safety problems along with independent and collaborative strategies designed to promote, maintain and/or restore health.
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 the individual and their mental health needs, and aims to provide a framework for nursing care which acknowledges the importance of promoting, maintaining and restoring mental health. It addresses contemporary concepts of mental health and mental illness; biological and sociocultural factors which can influence mental health and mental health problems; mental health assessment; and strategies for mental health promotion.
Prerequisites: NSB151, NSB152
Credit Points: 8 **Contact Hours:** 3 per week

NSB304 NURSING & CULTURE

Socio-structural, behavioural, lifestyle and genetic factors play a large part in the determination of health status in contemporary Australia. This subject aims to develop an understanding, acceptance and appreciation of culture such that students are better able to provide people-centred care within a multicultural health care context. Topics include: the nature of culture and behavioural practices of societies, fundamental aspects of socio-anthropological and epidemiological methodology, the cultural nature of contemporary Australian society, health policy and ethnic sub-cultural diversity, and cultural beliefs, activities, values and behaviour regarding selected health-related practices.
Credit Points: 8 **Contact Hours:** 3 per week

NSB314 CLINICAL PRACTICE 3A

This subject provides the opportunity for students to develop a range of skills which are associated with the nursing care of people experiencing biophysical or mental health dysfunction. Students practise the application of problem solving skills, selected technical and process skills and organising skills in both University (on-campus) and clinical (off-campus) laboratories. The clinical laboratory experiences in this subject are undertaken in settings which include hospitals and palliative care facilities or psychiatric-mental health facilities.
Co-requisites: NSB214, NSB301, NSB215, or NSB302
Credit Points: 8 **Contact Hours:** 6 per week

NSB315 CLINICAL PRACTICE 3B

This subject provides students with the opportunity to consolidate skills which they have acquired in previous subjects, particularly NSB314. It aims at the achievement of an increasing level of competence in clinical situations. The learning experiences are conducted in the clinical (off-campus) laboratory, and the settings are as described for the preceding Clinical Practice subject.
Co-requisite: NSB314
Credit Points: 8
Contact Hours: 60 per 2 week block following semester

NSB401 NURSING & BIOPHYSICAL HEALTH 2

This subject 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.
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 advancing 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.
Prerequisites: NSB151, NSB152
Credit Points: 8 **Contact Hours:** 3 per week

NSB406 NURSING & THE FAMILY

Family nursing practice recognises the substantial impact that families can have both on the health of individuals within the family unit, and upon society as a whole. This subject provides an introduction to the knowledge base which underpins family nursing practice, and facilitates 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.
Credit Points: 8 **Contact Hours:** 3 per week

NSB407 NURSING & THE COMMUNITY

Community health is an important focus for nursing practice. This subject provides an introduction to the fundamentals of community nursing practice and facilitates the development of decision-making skills in this area. Topics include: models of community; community development; perspectives of community health; the application of epidemiological principles to community health; community groups with particular health needs; strategies for the promotion of community health.
Credit Points: 8 **Contact Hours:** 3 per week

NSB414 CLINICAL PRACTICE 4A

This subject provides further opportunity for students to develop skills which are associated with the nursing care of people experiencing biophysical or mental health dysfunction. Students practise the application of problem-solving skills, technical skills and health teaching skills in both the University (on-campus) and clinical (off-campus) laboratories. The clinical laboratory experiences takes place in settings which include hospitals, palliative care facilities, and disability services or psychiatric-mental health facilities and disability services.
Co-requisites: NSB214, NSB401, NSB215 or NSB402
Credit Points: 8 **Contact Hours:** 6 per week

NSB415 CLINICAL PRACTICE 4B

This subject provides students with the opportunity to consolidate skills which they have acquired in previous subjects, particularly NSB414. It aims at the achievement of an increasing level of competence in clinical situations. The learning experiences are conducted in the clinical (off-campus) laboratories, and the settings are as described in the preceding clinical practice subject.
Co-requisite: NSB414
Credit Points: 8
Contact Hours: 60 per 2 week block following semester.

NSB504 PROFESSIONAL ISSUES IN NURSING 1

Nursing as a profession and the implications for nursing practice. Topics include: the nature of professions; the development of standards; quality assurance strategies; the significance of continuing education; nursing authorities and organisations; influences on the development of nursing as a profession; the future of professional nursing.
Credit Points: 8 **Contact Hours:** 3 per week

NSB505 PROFESSIONAL ISSUES IN NURSING 2

The contemporary development of nursing as a profession is closely linked with an increasing focus on theory and theory development in nursing. This subject is designed to facilitate an understanding of the role that nursing theory plays within the discipline. Topics include: nature of nursing theory; the development of theory in nursing, and factors which have been influential in this process; and an overview of nursing theories and models including selected applications to practice.
Credit Points: 8 **Contact Hours:** 3 per week

NSB514 CLINICAL PRACTICE 5A

This subject 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 subject are undertaken in settings which include hospitals and palliative care facilities or psychiatric-mental health facilities.
Co-requisites: NSB214, NSB215
Credit Points: 8 **Contact Hours:** 3 per week

NSB515 CLINICAL PRACTICE 5B

This subject provides students with the opportunity to consolidate skills which they have acquired in previous subjects, particularly NSB514. 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 subjects.
Co-requisite: NSB514
Credit Points: 8
Contact Hours: 60 per 2 week block following semester

NSB601 RESEARCH IN NURSING PRACTICE

An understanding of the components of the research process is essential in the development of an informed approach to contemporary nursing practice. This subject addresses topics which include the significance of research in nursing; the process of research; and the appraisal of research reports.
Credit Points: 8 **Contact Hours:** 3 per week

NSB614 CLINICAL PRACTICE 6A

This subject provides students with the opportunity to develop further clinical skills associated with the Health Strand studied in the third year of the program. Students practise the application of problem-solving skills; selected technical skills; and organising, health education, advocacy and counselling skills in both the University (on-campus) and clinical (off-campus) laboratories. The clinical laboratory experiences in this subject are undertaken in settings which include hospitals, palliative care facilities and/or psychiatric – mental health facilities.
Co-requisites: NSB214, NSB215
Credit Points: 8 **Contact Hours:** 3 per week

NSB615 CLINICAL PRACTICE 6B

This subject provides students with the opportunity to consolidate skills which they have acquired in previous subjects, especially Clinical Practice. It aims at the achievement of a level of competence which is consonant with the expectations of a beginning practitioner in nursing. The learning experiences are conducted in clinical (off-campus) laboratories, and the settings are as described for the preceding Clinical Practice subject.

Co-requisite: NSB614
Credit Points: 8
Contact Hours: 60 per 2 week block following semester

NSN102 CONCEPTS FOR ADVANCED CLINICAL NURSING

In recent years there has been significant development in the role of the professional nurse as an advanced-level planner and provider of care. At this level, it is expected that nurses show a high degree of competence with an independent problem-solving approach to client care and are able to interact widely on intra-, inter- and extra-professional levels. Therefore, this subject is designed to enhance knowledge and skills involved in the selection, provision and communication of contemporary nursing care.

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

NSN103 RESEARCH METHODS IN NURSING

This subject provides opportunities for students to develop skills in research design and data collection processes related to clinical phenomena. The data analysis component emphasises statistical techniques applicable to nursing research design.

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

NSN104 PROFESSIONAL ISSUES IN NURSING

This subject is designed to enable students to expand the concept of the social significance of nursing as well as analyse the profession's accountability and responsibility to health care at local, national and international levels. Major topics include: theoretical and ideological perspectives of professional regulation; nursing's approach to professionalisation and the involvement of national and international nursing organisations in health policy formulation. Students are given the opportunity to consider the influence of other disciplines and the historical environment on the development of ideas in nursing theory.

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

NSN105 MEDICAL/SURGICAL NURSING 1

Advanced specialisation in medical-surgical nursing requires the ability to deal critically and effectively with particular clinical phenomena so that the health of the individual, family or community is promoted. This subject, which focuses on the individual as client, provides opportunities for students to enhance previous clinical knowledge and skills so that excellence in nursing care may be realised.

Prerequisites: NSN101, NSN102
Credit Points: 12 **Contact Hours:** 3 per week

NSN106 MEDICAL/SURGICAL NURSING 2

Advanced specialisation in medical-surgical nursing requires the ability to deal critically and effectively with particular clinical phenomena so that the health of the individual, family or community is promoted. This subject adds a family focus to that of the individual. It provides opportunities for students to enhance previous clinical knowledge and skills so that excellence in nursing care may be realised.

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

NSN107 MEDICAL/SURGICAL NURSING 3

Advanced specialisation in medical-surgical nursing requires the ability to deal critically and effectively with particular clinical phenomena so that the health of the individual, family or community is promoted. This subject adds a community focus to that of the individual and family. It provides opportunities for students to enhance previous clinical knowledge and skills so that excellence in nursing care may be realised.

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

NSN108 PRIMARY HEALTH CARE NURSING 1

Advanced specialisation in primary health care nursing requires the ability to critically analyse issues and trends affecting the health and lifestyle of individuals, families and communities. This subject focuses on the individual as client and provides the foundation for the primary health care nursing stream by exploring a broad range of factors which together define the parameters of primary health care practice.

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

NSN109 PRIMARY HEALTH CARE NURSING 2

Advanced specialisation in primary health care nursing requires the ability to critically analyse issues and trends affecting the health and lifestyle of individuals, families and communities. This subject focuses on the family as client and provides opportunities to enhance previous clinical knowledge and skills through the application and evaluation of appropriate health education strategies.

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

NSN110 PRIMARY HEALTH CARE NURSING 3

Advanced specialisation in primary health care nursing requires the ability to critically analyse issues and trends affecting the health and lifestyle of individuals, families and communities. This subject focuses on the community as client and provides opportunities to enhance previous clinical knowledge and skills through the application and evaluation of appropriate health education strategies.

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

NSN111 PSYCHIATRIC/MENTAL HEALTH NURSING 1

Advanced clinical practice in psychiatric-mental health nursing requires the ability to deal critically and effectively with interpersonal processes and strategic therapeutic use of self to restore, maintain, promote and prevent mental and psychiatric disability. Particular attention is given to interpersonal dynamics and behaviour as basic processes by which nursing assessment and intervention occur. This subject, which focuses on the individual as client, provides opportunities to enhance previous clinical knowledge and skills through the application and testing of interpersonal theory and therapeutics.

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

NSN112 PSYCHIATRIC/MENTAL HEALTH NURSING 2

In this subject particular attention is given to family dynamics and behaviour as basic processes by which nursing assessment and intervention occur. By focusing on the family as client, it provides opportunities

to enhance previous clinical knowledge and skills through the application and testing of family theory and therapeutics.
Credit Points: 12 **Contact Hours:** 3 per week

NSN113 PSYCHIATRIC/MENTAL HEALTH NURSING 3
Particular attention is given to current trends and approaches to the organisation and delivery of mental health services within Australia with selected international comparisons.
Credit Points: 12 **Contact Hours:** 3 per week

NSN114 MIDWIFERY 1
Philosophies of advanced midwifery practice; the role of the midwife; formal and informal structures that influence the practice of midwifery; strategies that facilitate the role of the midwife; family theory and concepts related to the community.
Credit Points: 12 **Contact Hours:** 3 per week

NSN115 MIDWIFERY 2
The individual and family during child-bearing processes; the human and social sciences that form the basis of normal child-bearing processes; theoretical framework for health promotion and maintenance; the relationship between psycho-physiological phenomena, its effect on individual and family functioning; advanced midwifery practice.
Credit Points: 12 **Contact Hours:** 3 per week

NSN116 MIDWIFERY 3
The individual and family during child-bearing processes that are affected by health problems; the human and social sciences related to health problems of pregnancy and the neonate. A theoretical framework for restorative and rehabilitative midwifery practice is developed and applied.
Credit Points: 12 **Contact Hours:** 3 per week

NSN117 GERONTOLOGICAL NURSING 1
The individual and particularly the biological issues of ageing, both normal and abnormal; the clinical component emphasises the delivery of individualised nursing care which maximises the control and independence of the elderly person; genetic and non-genetic biological theories of ageing; epidemiological issues of age; selected acute or chronic health deviations common to ageing; nursing assessment, care planning and care delivery with the elderly client and approaches and technologies for maximising the independence of elderly people.
Credit Points: 12 **Contact Hours:** 3 per week

NSN118 GERONTOLOGICAL NURSING 2
The family and the roles and relationships within families with elderly members; the psychological theories of later life; theories of adjustment to ageing; roles and relationships of families with elderly members; role of carers in families with a highly dependent older member and the assessment and selection of nursing interventions to be used with elderly clients and their families.
Credit Points: 12 **Contact Hours:** 3 per week

NSN119 GERONTOLOGICAL NURSING 3
Ageing as a community and social issue; an investigation of social and policy responses to ageing in Australian and other societies; the sociology of ageing; principles of epidemiology of ageing and public health; role and status changes of ageing; social attitudes to ageing; historical perspectives; cross-cultural perspectives and the direction and impact of policies in relation to the aged population.
Credit Points: 12 **Contact Hours:** 3 per week

NSN120 CHILD & ADOLESCENT NURSING 1
The role of the nurse who practises with children, adolescents and child rearing families within various health care systems, the factors that impinge on or facilitate the provision of care. Theoretical frameworks are utilised and a philosophy of advanced nursing practice is formulated.
Credit Points: 12 **Contact Hours:** 3 per week

NSN121 CHILD & ADOLESCENT NURSING 2
The primary prevention strategies for the health of children, adolescents and the child rearing family; theoretical framework for health promotion and maintenance.
Credit Points: 12 **Contact Hours:** 3 per week

NSN122 CHILD & ADOLESCENT NURSING 3
The pathophysiological and behavioural problems experienced by the child rearing family, children and adolescents who have special needs; the implications for the role of the nurse working in the area. Students develop competencies in advanced nursing practice to accommodate these special needs. The emphasis is on secondary and tertiary prevention strategies.
Credit Points: 12 **Contact Hours:** 3 per week

NSN201 GRIEF & BEREAVEMENT
Advanced level clinical practice in any field of nursing requires the ability to deal effectively and sensitively with grieving and bereaved individuals and families. The purpose of such practice is two fold: to enable the dying to experience a dignified and peaceful death; and to assist the families of bereaved individuals with the their adaptation to the loss. This subject provides opportunities for student to enhance previous clinical knowledge and skills so that excellence in nursing care may be realised when caring for grieving and bereaved individuals and families in hospital and community settings.
Credit Points: 6 **Contact Hours:** 1.5 per week

NSN202 NURSING & HEALTH EDUCATION PRACTICE
This elective subject of study introduces practising nurses to the theoretical perspectives of health education. Particular attention is given to the development, implementation and evaluation of health education programs which focus on specific needs of groups and/or communities.
Credit Points: 6 **Contact Hours:** 1.5 per week

NSN203 HUMAN SEXUALITY & HEALTH
Human sexuality remains a controversial and highly debated topic in Australian society. Although there is a growing awareness amongst nurses of the significance of human sexuality to patient care, many nurses suffer from the same paucity of information, myths and misconceptions about sexuality that afflict the broader community. Students undertaking this elective have the opportunity to explore a subject of considerable complexity within a nursing context.
Credit Points: 6 **Contact Hours:** 1.5 per week

NSN204 PAIN: A NURSING FOCUS
Pain is a universal experience which may cause individuals, together with their families, great distress. It is also a subjective, personal experience about which much is still being learnt and understood. This

subject provides opportunities for students to extend previous clinical knowledge and skills so that a contemporary and comprehensive approach to pain assessment and management may be initiated by the nurse.
Credit Points: 6 **Contact Hours:** 1.5 per week

NSN205 INDEPENDENT STUDY
The intention of this subject of study is to increase flexibility and provide the opportunity for indepth study in an approved area of study interest to meet the diverse needs and interests of practising registered nurses.
Credit Points: 6 **Contact Hours:** 1.5 per week

NSN301 ADVANCED NURSING EDUCATION 1
This subject is designed to increase students' knowledge of the theoretical bases of teaching and learning in order to promote and facilitate learning. Students from various disciplines on campus can be accommodated within this subject. Students of nursing focus on the professional practice of that discipline.
Credit Points: 12 **Contact Hours:** 3 per week

NSN302 ADVANCED NURSING EDUCATION 2
This subject provides opportunities for students to view measurement and evaluation as essential components of sound educational decision making. Students from various disciplines on campus are able to be accommodated within this subject. Students of nursing focus on the professional practice of that discipline.
Prerequisite: NSN301
Credit Points: 12 **Contact Hours:** 3 per week

NSN303 ADVANCED NURSING EDUCATION 3
This subject enables students to explore aspects of curriculum development which are relevant to their specific areas of interest. Students from various disciplines on campus are able to be accommodated within this subject. Students of nursing focus on the professional practice of that discipline. Content focuses on perspectives, principal issues and theoretical approaches to curriculum assessment, planning implementation, evaluation and innovation.
Prerequisite: NSN301
Credit Points: 12 **Contact Hours:** 3 per week

NSN304 ADVANCED NURSING MANAGEMENT 1
This subject provides opportunities for students to examine the organisation context of nursing and health care from a number of theoretical perspectives and to enable them to contribute effectively to debate on the nature of nursing and health care organisation.
Credit Points: 12 **Contact Hours:** 3 per week

NSN305 ADVANCED NURSING MANAGEMENT 2
This subject provides an opportunity for students to examine management processes of nursing divisions within health care organisations enabling them to have creative input into the nursing environment.
Prerequisites: NSN301
Credit Points: 12 **Contact Hours:** 3 per week

NSN307 ADVANCED NURSING CLINICAL 1
This subject allows the student to develop an advanced clinical nurse practice role. It focuses on the role of the advanced clinical nurse practitioner; and includes role creation/development including role theory, role application, role analysis and strategies for implementing role. Students develop a conceptual framework for advanced clinical practice which includes but is not be limited to: expert clinical practitioner advocate, change agent, professional role model, clinical teacher/mentor and motivator.
Prerequisite: Clinical Specialisation 3
Credit Points: 12 **Contact Hours:** 3 per week

NSN308 ADVANCED NURSING CLINICAL 2
This subject allows the students to implement functions of the advanced clinical practice role. The content of this subject focuses on implementing the advanced clinical practice role in a selected area. It provides experiences to strengthen clinical skill, knowledge and judgment.
Prerequisite: NSN301
Credit Points: 12 **Contact Hours:** 3 per week

NSN309 ADVANCED NURSING CLINICAL 3
This subject is designed to develop knowledge and skill in the consultative function of the advanced clinical practitioner role. It also develops skill in the implementation of innovative change utilising skills from leadership, innovation, and change theory. This subject examines consultation theory and practice in detail. The areas of study include a focus on relationship between the nurse consultant and the client, problems that can arise, planning intervention and evaluation of the consultative process.
Prerequisite: NSN301
Credit Points: 12 **Contact Hours:** 3 per week

NSN401 STRATEGIES FOR NURSING RESEARCH
This subject introduces postgraduate students to the use and application of qualitative research techniques in nursing practice. The content is selected from techniques such as participant observation and unstructured interviewing as well as qualitative approaches in nursing research such as phenomenology, grounded theory, ethnography and historical research.
Credit Points: 12 **Contact Hours:** 1.5 per week

NSN403 DISSERTATION
The dissertation should be a substantive and original research study. It should provide evidence that the student has identified a significant problem, reviewed the relevant literature, developed appropriate methodology to collect and analyse data, implemented the study and presented the findings in a form consistent with school requirements.
Prerequisites: NSN401, MSN150
Credit Points: 12 **Contact Hours:** 6 per week

NSN404 DISSERTATION
The dissertation should be a substantive and original research study. It should provide evidence that the student has identified a significant problem, reviewed the relevant literature, developed appropriate methodology to collect and analyse data, implemented the study and presented the findings in a form consistent with school requirements.
Prerequisites: NSN401, MSN150
Credit Points: 12 **Contact Hours:** 6 per week

OPB132 OPHTHALMIC OPTICS 2
An introduction to ophthalmic optics; optical properties of spherical and astigmatic lenses and of ophthalmic prisms; bifocals, multifocals and special lens types; ophthalmic lens materials and lens quality;

the ophthalmic prescription, its interpretation and verification.
Prerequisite: PHB150 **Co-requisite:** 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.
Prerequisite: PHB240 **Co-requisite:** PHB340
Credit Points: 14 **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 subserving vision. Ocular embryology.
Prerequisite: PNB363
Co-requisites: PNB435; OPB412
Credit Points: 8 **Contact Hours:** 3 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.
Prerequisites: OPB312; PHB340
Co-requisite: OPB401
Credit Points: 14 **Contact Hours:** 5 per week

OPB504 OPHTHALMIC OPTICS 5

A continuation of OPB132, with emphasis on problems with spectacle lenses. The practical application of theory to ophthalmic dispensing in the laboratory.
Prerequisites: OPB132, PHB340
Credit Points: 6 **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.
Prerequisite: OPB412
Co-requisites: OPB509, OPB508, OPB527
Credit Points: 8 **Contact Hours:** 4 per week

OPB508 OCULAR PHYSIOLOGY

All aspects of ocular physiology including the vegetative physiology of various ocular structures, visual neurophysiology and an introduction to electrophysiological techniques.
Prerequisites: OPB412, OPB401
Co-requisites: OPB509, OPB505, OPB527
Credit Points: 8 **Contact Hours:** 4 per week

OPB509 OPTOMETRY 5

The theory and practice of clinical procedures which are used in routine eye examinations.
Prerequisites: OPB412, OPB401
Co-requisite: OPB508, OPB505, OPB527
Credit Points: 18 **Contact Hours:** 9 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.
Prerequisites: PNB435, OPB401, MSB430
Co-requisites: OPB505, OPB508, OPB509
Credit Points: 8 **Contact Hours:** 3 per week

OPB605 CLINICAL OPTOMETRY 6

The continuation of OPB505. The clinical application of techniques learnt in OPB509 and OPB609 (studied concurrently) in the management of patients presenting for eye examinations.
Prerequisite: OPB505
Co-requisites: OPB608, OPB609, 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.
Prerequisites: OPB508, OPB509
Co-requisites: OPB605, OPB609, OPB627, OPB617
Credit Points: 6 **Contact Hours:** 3 per week

OPB609 OPTOMETRY 6

This subject is a continuation of the theory and practice of routine and advanced clinical procedures which are used when conducting a complete eye examination. The areas covered include ocular photography, the management of binocular vision anomalies, methods of examining the visual fields and the measurement of intra-ocular pressure.
Prerequisites: OPB508, OPB509
Co-requisites: OPB608, OPB605, OPB627, OPB617
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 subject focuses upon the fitting of contact lenses.
Prerequisites: OPB509, OPB505, OPB527
Co-requisites: 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.
Prerequisite: OPB527
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.
Prerequisite: OPB605
Co-requisites: OPB709, OPB717, OPB750
Credit Points: 24 **Contact Hours:** 13 per week

OPB709 OPTOMETRY 7

This subject is a continuation of OPB609 and provides knowledge and understanding of the theory and clini-

cal procedures involved in paediatric optometry, low vision, colour vision and aniseikonia.
Prerequisite: OPB609, OPB760
Co-requisites: OPB705, OPB717
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. The subject includes topics such as the physiological consequences of contact lens wear, management of contact lens patients, and fitting of lenses for keratoconus, extended wear and presbyopia. Practical sessions provide training in advanced diagnostic and fitting techniques.
Prerequisite: OPB617
Co-requisites: 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. Students work in groups of up to three on projects of their own choosing or on a topic chosen from a suggested list. Project topics must be original. Students conduct a literature search (including a computer-based search in conjunction with a reference librarian). They decide on the experimental hypotheses, plan and execute the experiment, analyse the results and write a report in manuscript form which it is hoped will be 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.
Co-requisites: 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.
Prerequisite: OPB709
Co-requisites: OPB805, OPB750
Credit Points: 6 **Contact Hours:** 2 per week

OPB805 CLINICAL OPTOMETRY 8

A continuation of OPB705. This subject places emphasis on the students' decision-making skills in the evaluation, care and treatment of patients who may have a wide range of visual disorders.
Prerequisites: OPB705, OPB717
Co-requisite: OPB803
Credit Points: 32 **Contact Hours:** 17 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.
Credit Points: 8 **Contact Hours:** 3 per week

PHA213 MEDICAL INSTRUMENTATION 2

Basic concepts and procedures in diagnostic instrumentation; transducer principles; characteristics of physiological signals; methods of measurement and instrumentation principles. Hospital visits may be included.
Prerequisite: PHA154
Credit Points: 8 **Contact Hours:** 4 per week

PHB111 PHYSICS 1B

A course of lectures and laboratory work on AC and DC circuit theory, electronics, vibrations and waves, sound.
Co-requisite: PHB104 unless Senior Physics has been undertaken.
Credit Points: 8 **Contact Hours:** 3 per week

PHB122 PHYSICS 1

Dimensional analysis, kinematics, dynamics, motion in a curve, mechanical properties of matter, gravitation, fluids, waves and acoustics, circuit theory and electronics.
Prerequisite: Sound Achievement in Senior Physics
Co-requisite: PHB001
Credit Points: 12 **Contact Hours:** 5 per week

PHB132 ENGINEERING PHYSICS 1A

A basic subject in the physics of waves and optics; including moving and stationary waves in various media, interference of waves, beats 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.
Credit Points: 6 **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.
Credit Points: 6 **Contact Hours:** 3 per week

PHB150 PHYSICS 1H

Basic physical measurements; mechanics; fluids; heat; vacuum physics; waves, acoustics, ultrasonics and optics, and the instrumentation used to measure biological parameters.
Credit Points: 12 **Contact Hours:** 6 per week

PHB170 PHYSICS FOR SURVEYORS

Mechanics; geometrical optics; physical optics; quantum optics; physics of materials; physics of the lower atmosphere; sound; electromagnetic fields; electronics.
Credit Points: 12 **Contact Hours:** 6 per week

PHB178 PRINCIPLES OF MEDICAL RADIATIONS

An introduction to the principles of medical imaging and to the methods of detection, diagnosis and treatment of cancer.
Credit Points: 10 **Contact Hours:** 5 per week

PHB222 PHYSICS 2

Properties of matter; fluids; quantum and radiation physics; thermal physics; electromagnetic fields.
Prerequisite: Sound Achievement in Senior Physics
Co-requisite: PHB001
Credit Points: 12 **Contact Hours:** 5 per week

PHB232 ENGINEERING PHYSICS 2
The physics of heat and properties of matter; including the kinetic theory of gases, temperature scales and thermometers, heat and heat measurement, thermodynamics and the molecular properties of matter; gravitational fields; basic radiation physics.
Credit Points: 6 **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 monochromatic and chromatic aberrations and of photometry and colour.
Prerequisite: PHB150 **Co-requisite:** OPB132
Credit Points: 12 **Contact Hours:** 7 per week

PHB250 PHYSICS 2H
An extension of PHB150 including a.c., d.c. circuit theory, with emphasis on electronics and instrumentation, fields, modern and nuclear physics.
Credit Points: 10 **Contact Hours:** 4 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).
Credit Points: 8 **Contact Hours:** 2 per week

PHB262 PHYSICS 2L
An extension of PHB150 including a.c., d.c. circuit theory, with emphasis on electronic and instrumentation, fields, modern and nuclear physics.
Credit Points: 8 **Contact Hours:** 4 per week

PHB263 PHYSICS 2E
An extension of PHB150 including a.c., d.c. circuit theory, with emphasis on electronics and instrumentation, fields, modern and nuclear physics.
Credit Points: 12 **Contact Hours:** 6 per week

PHB272 RADIATION PHYSICS 1
Electrostatics, electromagnetism, the production of X-rays and their interaction with matter.
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.
Credit Points: 4 **Contact Hours:** 2 per week

PHB276 GENERAL RADIOGRAPHY 1
A program of lectures and practical sessions relating to radiography of the skeletal system.
Prerequisite: PNB125, PHB178
Co-requisite: PNB225
Credit Points: 14 **Contact Hours:** 7 per week

PHB279 CLINICAL RADIOGRAPHY 1
Practical programs carried out in approved clinical departments. Specific experiences relate to topics introduced in PHB276.
Credit Points: 4 **Contact Hours:** 2 per week

PHB286 TREATMENT PLANNING 1
An introduction to the techniques of radiotherapy treatment planning.
Credit Points: 12 **Contact Hours:** 6 per week

PHB287 MEGAVOLTAGE THERAPY 1
An introduction to the basic techniques of radiotherapy including beam direction and defining devices.
Prerequisites: PHB178, PHB125
Credit Points: 6 **Contact Hours:** 3 per week

PHB289 CLINICAL RADIOTHERAPY 1
Practical programs carried out in approved clinical departments. Specific experiences relate to topics introduced in PHB287.
Credit Points: 4 **Contact Hours:** 2 per week

PHB313 RADIOGRAPHIC IMAGE INTERPRETATION
The basic of image formation in medical radiography, and the significance of diagnostic techniques and their image appearances in assessment of the lower extremity.
Credit Points: 6 **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.
Prerequisites: PHB122, PHB222, MAB222
Co-requisite: MAB432
Credit Points: 12 **Contact Hours:** 5 per week

PHB332 PHYSICS 3B
Measures of sound; sound emission and propagation; sound in enclosed spaces; measurement; environmental and occupational noise; building and architectural acoustics. Interference by division of wavefront and by amplitude division; interferometry; diffraction; holography; Fourier methods.
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.
Prerequisites: PHB240, PHB250
Credit Points: 12 **Contact Hours:** 7 per week

PHB342 PHYSICS 3C
Forces between atoms; structure of solids; types of materials; defects; phase transformations; rate processes; diffusion and crystallisation; surfaces and interfacial phenomena; corrosion; mechanical properties; modern materials; vacuum theory; systems and components; leak detection and thin film processing.
Prerequisites: PHB122, PHB222 and (MAB212 or MAB222)
Credit Points: 12 **Contact Hours:** 5 per week

PHB352 ELECTRONICS 1
Laboratory measurement techniques and instrumentation; AC circuit analysis; Bode plots, pole-zero plots, RC networks, diodes, transistors, FET, SCR, Triac and applications; feedback theory and applications; operational amplifier fundamentals; digital circuits: gates, FF, counters, registers.
Prerequisite: At least four level 1 subjects, preferably including Physics.
Credit points: 12 **Contact Hours:** 5 per week

PHB373 NUCLEAR MEDICINE IMAGING 1
The principles, equipment and applications of nuclear medicine imaging.
Credit Points: 4 **Contact Hours:** 2 per week

PHB374 RADIOGRAPHIC EQUIPMENT 1
Detailed discussion of design considerations of X-ray generators and equipment used for control of beam direction.
Credit Points: 6 **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 utilising contrast media.
Prerequisites: PHB276, PHB279, PNB225
Credit Points: 12 **Contact Hours:** 5 per week

PHB379 CLINICAL RADIOGRAPHY 2
Clinical experiences in radiographic examinations introduced in PHB276 and PHB376. Experience is obtained in approved clinical departments.
Prerequisites: PHB276, PHB279, PNB225
Credit Points: 10 **Contact Hours:** 5 per week

PHB382 RADIOTHERAPY PHYSICS 1
A study of the design, physical aspects and operating characteristics of megavoltage and telecurie units.
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. The planning of electron therapy.
Credit Points: 8 **Contact Hours:** 4 per week

PHB387 MEGAVOLTAGE THERAPY 2
The principles and applications of megavoltage therapy including techniques for specific sites.
Prerequisites: PHB287, PNB225
Credit Points: 10 **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 approved clinical departments.
Prerequisites: PHB289, PNB225
Co-requisite: PHB387
Credit Points: 10 **Contact Hours:** 5 per week

PHB422 PHYSICS 4A
Review of quantum mechanics; microscopic systems in equilibrium; probability and statistics; statistical descriptions of systems; internal energy, equipartition; interaction of two systems; laws of thermodynamics; entropy; fundamental statistical relations; classical thermodynamics; kinetic theory; quantum statistics and quantum gases; compressible and incompressible flow; viscous effects; supersonic flow and applications.
Prerequisites: PHB122, PHB222 and (MAB212 or MAB222)
Credit Points: 12 **Contact Hours:** 5 per week

PHB432 PHYSICS 4B
The Lorentz transformation; relativistic kinematics and dynamics; energy conversion and storage; photons; radioactivity; interaction of radiation with matter; radiation detectors; counting statistics; nuclear reactions; non-ionising radiation.
Prerequisites: PHB122, PHB222 and (MAB212 or MAB222)
Credit Points: 12 **Contact Hours:** 5 per week

PHB442 ASTRONOMY & ASTROPHYSICS
Spectral classification of stars; stellar formation, structure, evolution, introduction to general relativity and cosmology, galaxies, structure of the universe. Astronomical instrumentation other than optical, practical space astrophysics, advanced observational/practical work. Field trip.
Prerequisites: PHB122 and SCB222
Credit Points: 12 **Contact Hours:** 5 per week

PHB452 ELECTRONICS 2
Applications of operational amplifiers and special function ICs including filter networks; transducers; digital circuits: memories, timers, A/D and D/A systems; microprocessor fundamentals.
Prerequisite: PHB352
Credit Points: 12 **Contact Hours:** 5 per week

PHB462 EXPERIMENTAL PHYSICS 4
Experimental method and design; data analysis; preparation and presentation of reports; group project.
Prerequisite: At least two level 2 Physics subjects.
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 subjects of the course.
Credit Points: 4 **Contact Hours:** 2 per week

PHB473 MEDICAL ULTRASOUND
The physical principles and application of ultrasound.
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.
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.
Credit Points: 8 **Contact Hours:** 3 per week

PHB476 SPECIAL PROCEDURES
Specialised techniques of radiography, including the skull, obstetrics, gynaecology, CNS and paediatric radiography.
Prerequisites: PHB376, PHB379
Credit Points: 8 **Contact Hours:** 3 per week

PHB479 CLINICAL RADIOGRAPHY 3
Clinical experience in approved departments in radiographic examinations discussed in PHB376.
Prerequisites: PHB376, PHB379
Credit Points: 8 **Contact Hours:** 4 per week

PHB481 DOSIMETRY
A study of the measurement and dosimetry of external beam X-ray and gamma ray radiotherapy.
Credit Points: 6 **Contact Hours:** 3 per week

PHB482 RADIOTHERAPY PHYSICS 2
A study of radioactivity including methods of radiation detection, radioactive equilibrium and

production of radioisotopes, the principles of brachytherapy.
Prerequisite: PHB382
Credit Points: 6 **Contact Hours:** 3 per week

PHB484 PRINCIPLES OF TREATMENT 1
The principles underlying the choice of treatment of cancer in specific sites including consideration of associated treatment.
Credit Points: 6 **Contact Hours:** 3 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.
Prerequisites: PHB387, PHB389
Credit Points: 10 **Contact Hours:** 4 per week

PHB489 CLINICAL RADIOTHERAPY 3
Clinical experiences in approved departments in techniques of megavoltage therapy.
Prerequisites: PHB389, PHB387
Co-requisite: PHB487
Credit Points: 8 **Contact Hours:** 4 per week

PHB501 APPLIED QUANTUM MECHANICS
A course of lectures on quantum mechanics and theory of spectra.
Prerequisites: PHB310[R], MAB411 and MAB412
Credit Points: 8 **Contact Hours:** 3 per week

PHB502 ELECTROMAGNETIC FIELD THEORY
Electromagnetic field theory; static field theory, wave equation, plane and spherical wave solutions, properties of plane waves, reflection, refraction, wave guides, cavity resonators and radiation theory.
Prerequisites: PHB310[R], MAB411 and MAB412
Credit Points: 8 **Contact Hours:** 3 per week

PHB508 ELECTRONICS 3
Microprocessor fundamentals and interfacing to computers, displays and instrumentation. Design of microprocessor controlled data collection and analysis systems.
Prerequisite: PHB408
Credit Points: 8 **Contact Hours:** 3 per week

PHB510 PHYSICAL METHODS OF ANALYSIS
A course of lectures and associated practical work on a range of physical techniques of analysis, including X-ray diffraction and fluorescence, electron microscopy, neutron activation analysis, electron microprobe analysis. Emphasis is on the physical principle, instrumentation and nature of information available from each technique. Industrial visits may be included.
Prerequisite: PHB312
Credit Points: 8 **Contact Hours:** 3 per week

PHB516 EXPERIMENTAL PHYSICS 5
Laboratory and field work in applied physics with emphasis on open ended experiments with modern equipment. Field trips may be necessary.
Prerequisite: PHB416
Co-requisite: At least one of PHB501, PHB502.
Credit Points: 12 **Contact Hours:** 6 per week

PHB572 IMAGE RECORDING & EVALUATION
A course of lectures and practical exercises on non-film image formation evaluation. Information theory.
Credit Points: 4 **Contact Hours:** 2 per week

PHB573 DIGITAL IMAGING MODALITIES
A study of the principles, methods and applications of CT, digital radiography and MRI in medical imaging.
Credit Points: 6 **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.
Credit Points: 6 **Contact Hours:** 3 per week

PHB575 MEDICAL RADIATIONS COMPUTING 2
A course of lectures and practical exercises related to the applications of computers in image processing and radiotherapy.
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.
Prerequisites: PHB476, PHB479
Co-requisite: PHB578
Credit Points: 12 **Contact Hours:** 6 per week

PHB578 IMAGE INTERPRETATION 1
A course of lectures and practical exercises on image interpretation including technical and diagnostic quality.
Credit Points: 4 **Contact Hours:** 2 per week

PHB579 CLINICAL RADIOGRAPHY 4
Clinical experience in special radiographic procedures as introduced in PHB476.
Prerequisites: PHB476, PHB479
Credit Points: 8 **Contact Hours:** 4 per week

PHB583 COMPLEMENTARY & EVOLVING TECHNIQUES
A course of lectures on the principles, strengths and stage of development of techniques which are complementary to radiotherapy treatment of cancer including: hyperbaric 02 therapy, neutron therapy, pi-meson therapy, chemotherapy, cryotherapy and hyperthermia.
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.
Credit Points: 4 **Contact Hours:** 2 per week

PHB585 COMPUTER ASSISTED TREATMENT PLANNING 1
A study of planning hardware and software to include 2 dimensional planning. Development of concepts to an advanced level of understanding of computer-assisted optimisation of isodose distributions.
Credit Points: 8 **Contact Hours:** 3 per week

PHB587 ORTHOVOLTAGE & SUPERFICIAL THERAPY

A course of lectures and practical exercises on the specialised techniques of orthovoltage and superficial radiotherapy.
Prerequisites: PHB489, PHB487
Credit Points: 10 **Contact Hours:** 4 per week

PHB589 CLINICAL RADIOTHERAPY 4

Clinical experience in the techniques of radiotherapy employing orthovoltage and superficial therapy.
Prerequisites: PHB489, PHB487
Co-requisite: PHB587
Credit Points: 12 **Contact Hours:** 6 per week

PHB601 SOLID STATE PHYSICS

A course of lectures on the physics of materials, including mechanical, thermal and electrical properties.
Prerequisites: PHB401, PHB501, PHB312
Credit Points: 8 **Contact Hours:** 3 per week

PHB602 NUCLEAR PHYSICS & ENERGY

A course of lectures on applied nuclear physics, neutron physics, reactor technology and energy.
Prerequisite: PHB402
Credit Points: 8 **Contact Hours:** 3 per week

PHB608 APPLIED ACOUSTICS

Standards, principles of methods and instrumentation used in vibration, noise and sound measurements with emphasis upon architectural acoustics and traffic, industrial and community noise. Brief treatment of underwater acoustics and recording and reproduction of sound. Legal and technical aspects of professional practice. Field trips.
Prerequisite: PHB311
Credit Points: 8 **Contact Hours:** 3 per week

PHB609 APPLIED RADIATION PHYSICS

Special techniques of radiation counting and applications, health physics, radiation protection, and radiobiological effects.
Prerequisite: PHB402
Credit Points: 8 **Contact Hours:** 3 per week

PHB613 BIOPHYSICS

A course dealing with the biophysics of selected biological systems: electrical transmission systems, amplifiers, mechanical systems, molecular behaviours in fields; instrumentation for inter-cellular and inter-organ measurements: micro-electronics, transducers.
Prerequisites: At least 24 credit points in first level physics subjects and successful completion of at least 80 credit points of second level subjects.
Credit Points: 8 **Contact Hours:** 3 per week

PHB616 PROJECT

A supervised project on some aspect of applied physics which could involve the extension and application of existing techniques or the development of new techniques.
Prerequisite: PHB516
Co-requisite: At least one third level physics subject.
Credit Points: 16 **Contact Hours:** 6 per week

PHB620 TOPICS IN PHYSICS

Lectures, laboratory work and industrial visits in several topics relating to current advances in physics. The nature of the subject is dependent on departmental and staff activities at the time.
Prerequisite: At least 32 credit points in second level physics subjects.
Credit Points: 8 **Contact Hours:** 3 per week

PHB671 RADIATION BIOLOGY

A study of the biological effects on ionising and non-ionising radiation.
Credit Points: 4 **Contact Hours:** 2 per week

PHB672 PROJECT

A supervised project involving either application of existing theoretical practical knowledge or a literature survey of a selected relevant topic.
Credit Points: 8 **Contact Hours:** 3 per week

PHB676 ADVANCED RADIOGRAPHIC TECHNIQUE 2

An extension of topics in advanced radiographic technique as introduced in PHB576 to include mammography, technique for examination of the lymphatic system, and emerging techniques.
Prerequisites: PHB576, PHB579
Co-requisite: PHB678
Credit Points: 8 **Contact Hours:** 3 per week

PHB679 CLINICAL RADIOGRAPHY 5

Clinical experience in advanced radiographic techniques introduced in PHB576.
Prerequisites: PHB576, PHB579
Credit Points: 14 **Contact Hours:** 6 per week

PHB680 NUCLEAR MEDICINE IMAGING 2

A course of lectures, practical exercises and clinical experiences in nuclear medicine imaging. This subject expands on topics introduced in PHB373 and provides an indepth study of nuclear medicine imaging techniques.
Prerequisite: PHB373
Credit Points: 10 **Contact Hours:** 5 per week

PHB681 COMPUTED TOMOGRAPHY IMAGING

A course of lectures, practical exercises and clinical experiences in CT imaging. This subject expands on topics introduced in PHB573 and provides an indepth study of CT imaging techniques.
Prerequisite: PHB573
Credit Points: 10 **Contact Hours:** 5 per week

PHB683 ONCOLOGICAL IMAGING

A study of the principles and techniques of medical imaging used in the detection of cancer including CT, MRI, U/S and NM.
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, 3 dimensional plans.
Credit Points: 8 **Contact Hours:** 4 per week

PHB687 SPECIALISED RADIOTHERAPY TECHNIQUE

A study of specialised radiotherapy techniques including techniques applicable to the child patient and patients with communicable disease, theatre procedures, total body photon and electron therapy.
Credit Points: 10 **Contact Hours:** 4 per week

PHB689 CLINICAL RADIOTHERAPY 5

Clinical experience in specialised radiotherapy treatment techniques.
Prerequisite: PHB589 **Co-requisite:** PHB687
Credit Points: 8 **Contact Hours:** 4 per week

PHB701 TOPICS IN MEDICAL PHYSICS 1
Imaging techniques using ionising and non-ionising radiation, eg. planar X-ray, CT, nuclear medicine, MRI, ultrasound.
Credit Points: 12 **Contact Hours:** 4 per week

PHB702 TOPICS IN MEDICAL PHYSICS 2
Image processing techniques; enhancement, restoration and analysis; non-imaging diagnostic techniques.
Credit Points: 12 **Contact Hours:** 4 per week

PHB703 TOPICS IN MEDICAL PHYSICS 3
Principals and instrumentation of radiation dosimetry; radiobiology.
Credit Points: 12 **Contact Hours:** 4 per week

PHB704 TOPICS IN MEDICAL PHYSICS 4
Clinical radiotherapy and advanced aspects of radiobiology.
Credit Points: 12 **Contact Hours:** 4 per week

PHN101 ANALOGUE ELECTRONICS
Principles of electronics applicable in the medical field; discrete circuits and integrated circuits in common use: design and limitations.
Credit Points: 6 **Contact Hours:** 2 per week

PHN102 INTRODUCTION TO MEDICAL STATISTICS COMPUTING
Basic concepts of computing systems, programming, software engineering, introduction to medical applications. Medical applications of numerical methods and medical statistics.
Credit Points: 6 **Contact Hours:** 2 per week

PHN103 RADIATION PHYSICS 1
Study of the basic principles of radioactivity and radioactive decay and the interactions of ionising radiation with matter.
Credit Points: 6 **Contact Hours:** 2 per week

PHN104 RADIATION PHYSICS 2
Deals with phenomena related to interaction of ionising radiation with biological tissue. Emphasis on aspects of actual or potential importance in a clinical environment. Isotope production, nuclear radiation detectors.
Credit Points: 8 **Contact Hours:** 3 per week

PHN152 CROSS-SECTIONAL ANATOMY
A study of the cross-sectional anatomy of the head, neck, thorax and abdomen (including the pregnant uterus) with an emphasis on an appreciation of the structures demonstrated on ultrasound images.
Prerequisite: PNN161 (or equivalent)
Co-requisite: PNN165 (or equivalent)
Credit Points: 6 **Contact Hours:** 2 per week

PHN153 ULTRASOUND EQUIPMENT 1
The physical principles of diagnostic ultrasound including: wave physics; propagation; the Doppler effect; the biological effects of ultrasound; medical ultrasound equipment, including aspects related to transducers control; display; image performance and artefacts.
Credit Points: 6 **Contact Hours:** 2 per week

PHN154 PRINCIPLES OF ULTRASOUND IMAGING
The general principles of ultrasound imaging techniques including scanning motions, coupling agents, transducer selection and the problems associated with respiration.
Co-requisite: PHN153
Credit Points: 6 **Contact Hours:** 2 per week

PHN155 ULTRASONIC EXAMINATION IN OBSTETRICS/GYNAECOLOGY
A study of the normal and abnormal anatomy and function related to gynaecology and obstetrics, the ultrasonic techniques used and the appearance of related images.
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.
Co-requisite: PHN154
Credit Points: 6 **Contact Hours:** 2 per week

PHN157 CLINICAL ULTRASOUND 1
A supervised practical program carried out in an approved clinical ultrasound department. Students must obtain hands-on experience in specified ultrasound procedures used in examination of the abdomen, pelvis and in obstetrics and gynaecology.
Co-requisites: PHN154, PHN153
Credit Points: 12

PHN202 BIOMECHANICS
Study of mechanical principles and properties related to human tissues and physiological functions with emphasis on work ergonomics and occupational health measurement problems.
Credit Points: 8 **Contact Hours:** 3 per week

PHN204 HEALTH & OCCUPATIONAL PHYSICS
Deals with philosophy, protocol and practices necessary to minimise hazards associated with electrical, mechanical and biological techniques used in hospitals. Study of principles and techniques of dosimetry of ionising radiation with emphasis on aspects pertinent to actual or potential use in medicine.
Credit Points: 8 **Contact Hours:** 3 per week

PHN206 MEDICAL IMAGING
Study of the principles involved in the production of the radiographic and nuclear medicine images and the appropriate quality control protocols.
Credit Points: 8 **Contact Hours:** 3 per week

PHN257 CLINICAL ULTRASOUND 2
A period of additional clinical experience designed to refine basic skills acquired in PHN157.
Prerequisite: PHN157
Credit Points: 12

PHN301 MICROPROCESSORS
Basic digital integrated circuits and their applications in logic design and microprocessor interfacing. Microprocessor programming and applications. Integrated with instrumentation and medical imaging science to develop an understanding of microcomputer function and applications.
Credit Points: 8 **Contact Hours:** 3 per week

PHN302 INSTRUMENTATION
This subject concentrates on gaining experience in the use of a wide range of instrumentation. Topics include: generalised instrument, data transfer, data interpretation, servomechanisms, data recorders, systems, practical aspects of instrument use. Laboratory learning experience in the gathering, conditioning, storage and analysis of data, using skills learned in digital electronics, computing and instrumentation. Digital signal processing of physiological signals,

digital image processing, medical applications of numerical methods and medical statistics.
Credit Points: 8 **Contact Hours:** 3 per week

PHN304 MEDICAL IMAGING SCIENCE
Visual science, analogue and digital images, image enhancement, restoration and analysis, computed tomography, computer architecture, display instrumentation, recording and storage.
Credit Points: 6 **Contact Hours:** 2 per week

PHN351 ULTRASOUND EQUIPMENT 2
A course of lectures and practical exercises on the principles and techniques of quality assurance protocols used in ultrasonic imaging.
Prerequisite: PHN153
Credit Points: 6 **Contact Hours:** 2 per week

PHN352 ULTRASONIC EXAMINATION IN CARDIOLOGY
The techniques of ultrasound imaging used in investigating the cardiovascular system; techniques for demonstration of cardiac structures, cerebrovascular and peripheral vascular systems and peripheral venous systems.
Credit Points: 6 **Contact Hours:** 2 per week

PHN353 ULTRASOUND IN MEDICAL DIAGNOSIS
A study of the role of ultrasound in medical imaging diagnosis.
Credit Points: 6 **Contact Hours:** 2 per week

PHN354 ULTRASONIC EXAMINATIONS OF THE HEAD, NECK & PERIPHERAL ORGANS
The techniques ultrasound uses to examine the head, neck and peripheral organs and the ultrasonic appearance of normal and abnormal anatomy and pathology.
Prerequisite: PHN257
Credit Points: 6 **Contact Hours:** 2 per week

PHN357 CLINICAL ULTRASOUND 3
A supervised practical program carried out in an approved clinical ultrasound department. Students must obtain experience of specified ultrasound examinations used in cardiology and in the examination of the head, neck and peripheral organs.
Prerequisite: PHN257
Credit Points: 12

PHN402 RADIOTHERAPY
Considers the principles and techniques of clinical application of ionising radiation for diagnostic and therapeutic purposes. Emphasis is on radiotherapy physics and diabrachy therapy.
Credit Points: 6 **Contact Hours:** 2 per week

PHN405 PHYSIOLOGICAL MEASUREMENT
Introduction to the principles and techniques of the direct and indirect measurement of physiological variables.
Credit Points: 6 **Contact Hours:** 2 per week

PHN407 CASE STUDIES
Completion of assignments in applied practical procedures including reports written to journal publication standards.
Credit Points: 6

PHN520 PROJECT

PHN540 PROJECT
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 will be one year for full-time and two years for part-time students.
Credit Points: 48 and 24 per semester respectively
Contact Hours: 18 and 9 per week respectively

PHS021 INTRODUCTORY PHYSICS
This subject is intended to give the student a grounding in basic physics topics selected from the following areas; mechanics, heat, electricity, and magnetism and light. **Note:** This subject is not compatible with Senior Physics.
Credit Points: 6 **Contact Hours:** 3 per week

PLB102 HISTORY OF THE BUILT ENVIRONMENT 1
The development of man's artificial environment and its relationship to ideas, technology, and the fine arts from the earliest times to the seventeenth century.
Credit Points: 6 **Contact Hours:** 3 per week

PLB135 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.
Credit Points: 2 **Contact Hours:** 1 per week

PLB200 INTRODUCTORY DESIGN 2
Studio work; simple 3 dimensional design tasks at a variety of scales, and illustrating tasks associated with the five professions. Workshop and fieldwork are related to studio exercises.
Prerequisite: ARB140
Credit Points: 18 **Contact Hours:** 8 per week

PLB201 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 transactions with the world in general.
Credit Points: 4 **Contact Hours:** 2 per week

PLB209 APPLIED LAND SCIENCE FOR DESIGNERS
This subject is concerned with establishing the foundations of a scientific understanding of the earth's surface. It includes 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.
Credit Points: 2 **Contact Hours:** 1 per week

PLB300 PLANNING & LANDSCAPE DESIGN 1
Site planning theory and problem solving theory. The studio exercises develop the capacity to analyse the nature and use of spaces and to understand the role of creative expression in design.
Prerequisites: ARB140, ARB141, PLB113, PLB200, PLB209
Credit Points: 18 **Contact Hours:** 8 per week

PLB301 THE HUMAN ENVIRONMENT 3
The role of social, cultural, and historical variables in human-environment interactions. The 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.
Prerequisite: PLB201
Credit Points: 6 **Contact Hours:** 3 per week

PLB340 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.
Credit Points: 4 **Contact Hours:** 1 per week

PLB343 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. The powers, responsibilities and day-to-day activities of landscape architects and urban and regional planners.
Credit Points: 3 **Contact Hours:** 1 per week

PLB346 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.
Prerequisites: ARB140, PLB200
Credit Points: 6 **Contact Hours:** 3 per week

PLB400 PLANNING & LANDSCAPE DESIGN 2

Site planning techniques. The studio exercises link work commenced in site planning theory and site planning techniques. The subject integrates issues covered in PLB300 with the technical and practical aspects of site planning and design.
Prerequisites: PLB300, PLB301, PLB345
Credit Points: 20 **Contact Hours:** 6 per week

PLB401 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.
Prerequisite: PLB301
Credit Points: 4 **Contact Hours:** 2 per week

PLB408 DESIGN SCIENCE

The quantity and quality of light and daylight in buildings; macro and micro climatic conditions. Throughout the subject as each of these units is covered students are given opportunity to conduct experiments and test models. The subject consists of lecture and practical work.
Prerequisites: ARB140, CHB204, PHB144, PLB113, PLB200, PLB209
Credit Points: 4 **Contact Hours:** 2 per week

PLB409 COMPUTER TECHNIQUES

Development of understanding, awareness, and appreciation of the use 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.
Prerequisites: MAB195, MAB196
Credit Points: 4 **Contact Hours:** 2 per week

PLB411 LANDSCAPE ECOLOGY

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.
Credit Points: 8 **Contact Hours:** 3 per week

PLB414 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.
Credit Points: 6 **Contact Hours:** 3 per week

PLB440 INTRODUCTION TO ECONOMICS

An 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 subject deals with microeconomic concepts. The market system and associated concepts of demand, supply and price equilibrium.
Credit Points: 2 **Contact Hours:** 1 per week

PLB441 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.
Credit Points: 4 **Contact Hours:** 2 per week

PLB442 QUANTITIES & COSTS

Measurement and costing of time, resources, and materials for professional services, production of documents, and implementation of projects. The techniques and tools available for both preliminary and detailed measurement and costing and their control.
Credit Points: 2 **Contact Hours:** 1 per week

PLB500 PLANNING & LANDSCAPE DESIGN 3

This subject aims to confirm 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.
Prerequisites: PLB400, PLB408, PLB411
Credit Points: 20 **Contact Hours:** 6 per week

PLB511 LANDSCAPE CONSTRUCTION

Materials and methods of construction; skills in detailing and preparation of documents. Topics include: the common building materials; foundation soils; basic services of site stormwater drainage, water

and electrical services; applied systems, including paving, etc.
Prerequisites: PLB340, PLB345
Credit Points: 6 **Contact Hours:** 3 per week

PLB546 LAND DEVELOPMENT 1
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.
Credit Points: 8 **Contact Hours:** 3 per week

PLB547 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.
Credit Points: 4 **Contact Hours:** 2 per week

PLB561 ECONOMICS OF TOWN PLANNING
This subject is essentially microeconomic. It introduces urban economics and the economic aspects of town planning issues; provides techniques for economic analysis suited to planning needs; and illustrates interactions with employment, industry, population and urban studies at the economic interface.
Credit Points: 3 **Contact Hours:** 1 per week

PLB562 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.
Prerequisites: CMB116, CMB117, PLB346
Credit Points: 2 **Contact Hours:** 1 per week

PLB563 TRANSPORT PLANNING
Studies include alternative modes of transport; to methods for predicting future urban transport patterns; and to techniques of transport planning and management. It covers 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.
Credit Points: 5 **Contact Hours:** 2 per week

PLB565 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.
Credit Points: 6 **Contact Hours:** 2 per week

PLB600 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 a significant urban area.
Prerequisites: PLB400, PLB408, PLB411, PLB414, PLB511
Credit Points: 20 **Contact Hours:** 6 per week

PLB640 PLANTING DESIGN
Design characteristics and criteria. The 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 typical schemes such as streets, highways, parks, urban forecourts and interior plantscapes, gardens and broadscale regeneration and stabilisation.
Prerequisite: PLB345
Credit Points: 3 **Contact Hours:** 1 per week

PLB643 ISSUES & ETHICS
Case studies of successful solutions to environmental problems (eg Oregon, London, South Australia). Implications 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.
Prerequisites: Completion of years 1 and 2
Credit Points: 2 **Contact Hours:** 1 per week

PLB645 GRADING
Techniques of land surface manipulation including the construction of platforms for building, carparks, sports ovals and other features and the 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.
Prerequisite: PLB340
Credit Points: 4 **Contact Hours:** 2 per week

PLB646 LAND DEVELOPMENT 2
Continuation of PLB546. Land development projects, their financial, marketing and local authority requirements; the housing industry, firm and industry developments and current trends in these areas; the requirements of community, public and utility services.
Prerequisite: PLB546
Credit Points: 7 **Contact Hours:** 3 per week

PLB647 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.
Prerequisite: PLB547
Credit Points: 4 **Contact Hours:** 2 per week

PLB649 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.
Credit Points: 2 **Contact Hours:** 1 per week

PLB651 ELECTIVE – LANDSCAPE ARCHITECTURE

Final year undergraduate students are required to undertake a minimum of two hours of elective subjects. The elective may be taken in either semester or spread across both semesters depending on subject choice.

Prerequisites: Completion of years 1 and 2
Credit Points: 4 **Contact Hours:** 2 per week

PLB654 ELECTIVE – PLANNING

Any approved subject 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 may be selected from courses offered in other faculties of QUT or in another approved university.

Prerequisites: Completion of years 1 and 2
Credit points: 4 **Contact Hours:** 2 per week

PLB656 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.
Credit Points: 4 **Contact Hours:** 2 per week

PLB659 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.
Prerequisites: PLB411, PLB414
Credit Points: 5 **Contact Hours:** 2 per week

PLB663 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.
Credit Points: 4 **Contact Hours:** 2 per week

PLN101 URBAN DESIGN ANALYSIS STUDIO

The emphasis within this subject is on the development of skills in analysis related to the urban design process and adequate communication of the results.
Credit Points: 8 **Contact Hours:** 3 per week

PLN102 URBAN DESIGN CONTEXT STUDIO

Students are required to 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. Where applicable, work in other units of study will be related to this subject.
Credit Points: 8 **Contact Hours:** 3 per week

PLN103 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 will be incorporated into this subject.
Credit Points: 8 **Contact Hours:** 3 per week

PLN105 URBAN DESIGN FIELD STUDIES

This subject 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 are required to 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.
Credit Points: 2
Contact Hours: Approx 10 day field trip.

PLN111 COMPARATIVE PLANNING THEORY

The roles of planners: statutory, pluralist, advocate, consultants; different 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.
Credit Points: 8 **Contact Hours:** 2 per week

PLN112 CONCENTRATION STUDIES

In consultation with the lecturer in charge of the course, and with the approval of the Head of School, each student undertakes an agreed program of study which may involve taking selected courses from outside the urban and regional planning curriculum, focusing on a particular aspect of urban and regional planning which relates to the student's thesis topic. Every student is required to prepare a draft outline of the thesis and write a preliminary chapter or discussion paper which normally deals with the theoretical background or broad context of the topic selected for study.
Credit Points: 8 **Contact Hours:** 2 per week

PLN113 OPTION PROJECTS

Working in small groups, students undertake projects which broadly relate to their theses topics. Projects may relate to topics such as urban development and design, regional development planning and management, recreation and tourism planning, and planning in developing countries.
Credit Points: 12 **Contact Hours:** 3 per week

PLN114 APPLIED RESEARCH TECHNIQUES

Research techniques, including surveys of various types, statistical analysis, remote sensing and others as appropriate.

Credit Points: 4 **Contact Hours:** 1 per week

PLN115 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 the context of Brisbane.

Credit Points: 16 **Contact Hours:** 3 per week

PLN121 PLANNING THESIS

The thesis is normally required to be 30-50,000 words in length, or equivalent, and is normally related to the Concentration Studies and Option Project chosen by the student. It provides an opportunity to pursue in depth an issue or problem within his or her special field of interest. The precise subject and objectives are chosen in consultation with an appropriate tutor. Field work is usually a necessary component of the research required in the production of the Planning Thesis which should make an original contribution to knowledge in the field of urban and regional planning to a closely related area.

Credit Points: 24 **Contact Hours:** 2 per week

PLN122 PROFESSIONAL SEMINARS

Contributions by local and visiting speakers with specialist expertise or knowledge of specific issues or projects related to the work and interests of the built environment professions. Students from the different majors of the Master of Built Environment program are expected to attend and to participate fully in the discussions.

Credit Points: 8 **Contact Hours:** 2 per week

PLN123 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, governments, 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; economic transformations; the future of urban-rural relations in developing countries.

Credit Points: 8 **Contact Hours:** 2 per week

PLN124 OPTION COURSE

This course is developed by senior academic staff in response to matters of particular current significance; there are also opportunities to select appropriate elective courses from elsewhere within and outside the University.

Credit Points: 8 **Contact Hours:** 2 per week

PLN201 URBAN DESIGN 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.

Credit Points: 4 **Contact Hours:** 1 per week

PLN204 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 kunstlerichsen Grundsatzen 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.

Credit Points: 4 **Contact Hours:** 1 per week

PLN250 MASTERS STUDIO

Students select a specific studio usually 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 formal input on advanced aspects and concepts.

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

PLN251 ADVANCED PRACTICE 1

Presumes prerequisite understanding of practice relationships and processes. Emphasis is on the establishment and development of new markets and appropriate methodologies. Students are expected to use knowledge and skills developed in concurrent subjects.

Credit Points: 4 **Contact Hours:** 1 per week

PLN252 ADVANCED PRACTICE 2

Presumes prerequisite understanding of practice relationships and processes. Emphasis is on the establishment and development of new markets and appropriate methodologies. Students are expected to use knowledge and skills developed in concurrent subjects.

Credit Points: 8 **Contact Hours:** 2 per week

PLN253 PRACTICE SEMINAR

Students are required to prepare and present a formal seminar on a professional topical subject and to participate in those presented by fellow students.

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

PLN254 PROFESSIONAL SEMINARS

This subject 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.

Credit Points: 8 **Contact Hours:** 2 per week

PLN255 DESIGNATED STUDIES

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 subjects offered outside the major or a specified reading/research program under tutorial guidance.
Credit Points: 6 **Contact Hours:** 2 per week

PLN256 CONCENTRATION STUDIES
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, from other majors in the course, or from other advanced studies in the University.
Credit Points: 8 **Contact Hours:** 2 per week

PLN257 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. Each student is required to prepare a proposal for the dissertation.
Credit Points: 4 **Contact Hours:** 1 per week

PLN258 DISSERTATION
This subject 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.
Credit Points: 24 **Contact Hours:** 4 per week

PLN302 URBAN LANDSCAPE
The city as a landscape unit, notable examples of city/site relationships; 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; the choreography of spaces: use, settings, and furnishings, enclosures, floors, overhead structures, services, features, finishes. Natural elements and their nurture within urban areas: vegetation species, groupings, and their requirements, streets, plazas, forecourts, roofs, parts urban forests, natural areas; water bodies and their conservation as healthy feature; urban wildlife: habitats and contribution to the urban experience; landscape conservation techniques in urban areas.
Credit Points: 4 **Contact Hours:** 1 per week

PLN304 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 difference systems and traffic channels. Future trends in transport and movement systems and related issues.
Credit Points: 4 **Contact Hours:** 1 per week

PLN401 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.
Credit Points: 4 **Contact Hours:** 2 per week

PLN402 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 (eg Group Title, Heritage Acts, pedestrian malls) on the urban design process.
Credit Points: 4 **Contact Hours:** 1 per week

PLN501 URBAN DESIGN RESEARCH DISSERTATION (Masters students only)
The Research dissertation provides the student with the opportunity to innovatively pursue in depth an issue or problem within his or her special field of interest. The precise subject and objectives are chosen in consultation with the Course Coordinator. This may be achieved through an emphasis on a design project or through a written process. The balance between theory and design application in the dissertation may vary. However, a dissertation which focuses on a specific design project must be supported by a theoretical analysis sufficient to define the problem and to explain how the design proposed satisfies the conditions for a solution. Conversely a dissertation which focuses on the development of a theory must sufficiently illustrate the practical implications of the theory for the relevant classes of design task. The dissertation is supported by work undertaken as Applied Research Techniques.
Credit Points: 24 **Contact Hours:** 4 per week

PLN701 URBAN DESIGN ELECTIVE 1 (Graduate Diploma students only)
The opportunity for students to study an area of urban design of personal choice. Study required for this subject is undertaken as a taught subject within the University, with the approval of the Course Coordinator.
Credit Points: 4 **Contact Hours:** 1 per week

PLN702 URBAN DESIGN ELECTIVE 2 (Graduate Diploma students only)
Study required for the subject may be undertaken as taught subjects within the University or may be undertaken partly as taught subject and partly as individual studies under the direction of a tutor, all with the approval of the Course Coordinator. A normal program would be four taught subjects of average 6 credit points taken within the faculty or, two taught subjects of average 6 credit points taken within the

faculty and a design project or study program under tutorship.
Credit Points: 24 **Contact Hours:** 4 to 8 per week

PLP201 CULTURAL VALUES
Concepts of garden, landscape and environment; formative influences on late twentieth century thinking. Landscape as art or artefact, the fine arts tradition and iconography. The continuing influence of the picturesque and gardenesque. The scientific, rationalist approach and evolving environmental romanticism. Functionalism, symbolism and meaning. The demystification (quantification) of aesthetic and personal response and the influence of the social sciences. Pursuing a public art form.
Credit Points: 4 **Contact Hours:** 1 per week

PLP202 RESIDENTIAL LANDSCAPE DESIGN
Landscape design of single and multiple dwellings; range of housing and subdivision types; consequences for design; controls, by-laws, standards and regulations for residential development; relevant examples including Radburn planning, experimentation with residential forms in the last 50 years, and the Commonwealth's Affordable Housing program; expectations of residents and the development of attitudes to suburban and urban gardens in Australia; fashion, style, environmental constants, microclimatic control, viewsheds and privacy, noise amelioration.
Credit Points: 8 **Contact Hours:** 3 per week

PLP203 URBAN LANDSCAPE DESIGN
Theory: 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; preparation of a project brief; space theory and principles of spatial design. Studio: a medium scale intensive/multiple use project which demands re-design and rehabilitation; project site(s) visits and site surveys and client interviews to establish project briefs and carry out the design project; an advanced level of professional presentation is attached to the project output.
Credit Points: 10 **Contact Hours:** 3 per week

PLP204 LANDSCAPE PLANNING
Studies of medium to large-scale projects involving a range of biophysical, cultural and visual issues with a relatively high degree of complexity; focus on assessment and evaluation of related landscape attributes and issues with emphasis on deriving landscape management options in the form of policies, guidelines, and implementation strategies; studio incorporating lecture/seminar program to promote an understanding of the theoretical framework of landscape planning.
Credit Points: 10 **Contact Hours:** 4 per week

PLP205 LANDSCAPE DESIGN
Landscape design problems of increased scope, complexity and constraint; at least one one-day esquisse project in addition to the primary theme project extending for the duration of the subject; emphasis on the consistent resolution of design from broad concept through to the most detailed level; matters of appropriate style and morphology; theme applied consistently through scale and organisation of layout, selection of materials, forms and elements, and integration with surrounding context.
Credit Points: 10 **Contact Hours:** 3 per week

PLP206 FORUM/WORKSHOP A

PLP207 FORUM/WORKSHOP B
Content depends on the needs of students as perceived by staff during each semester: forum discussions structured around topical issues as debates, panel discussions, or seminars which may involve visiting specialist lecturers and/or participants. Skills extension session as seminars of studio tutorials in areas such as graphic and other communication techniques, new materials or processes, innovative approaches to design, or specialised survey/analysis techniques.
Credit Points: 2 **Contact Hours:** 1 per week

PLP208 LANDSCAPE PRACTICE
Practical experience for a period of at least three weeks in a landscape architectural office or offices as approved by the Course Coordinator; prerequisite to or co-requisite with the second part of the subject and logged as directed; lectures in principles of contract law, forms of contract, standard conditions of contract and conditions of engagement, contract administration, professional presentation.
Credit Points: 6 **Contact Hours:** 2 per week

PLP209 ADVANCED LANDSCAPE ECOLOGY
Structure of landscape and impact of human settlement; heterogeneous landscapes, patches, corridors, and the matrix; contrast and grain size; interaction among 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; computer graphics and modelling in landscape ecology; case studies in landscape ecology practice; potential for biological habitat reconstruction: issues, ethics, and practice.
Credit Points: 2 **Contact Hours:** 1 per week

PLP210 LANDSCAPE MANAGEMENT A
The relationship between management created/dependent landscapes and construction created landscapes; specifying and programming construction and management as part of design implementation; specialisations and appropriate case studies; horticulture, urban horticulture, arboriculture, plantscapes; bushland management, regeneration, and monitoring; catchment and watercourse management, embankment stabilisation.
Credit Points: 10 **Contact Hours:** 4 per week

PLP211 LANDSCAPE MANAGEMENT B
Assessment and evaluation including environmental impact analysis and an outline of current Commonwealth and State environmental assessment procedures and applications; visual and scenic quality assessment techniques; ecosystem protection; corridor and catchment management; introduction to broadscale computerised monitoring and management programs including a range of case studies; rural land use issues and systems; resource management issues and systems.
Credit Points: 10 **Contact Hours** :4 per week

PLP212 ADVANCED GRAPHICS
Applications of large format design presentations; case studies and examples; advanced colour techniques; relating verbal and visual material; relating design concepts to visual themes.
Credit Points: 4 **Contact Hours:** 2 per week

PLP213 ADVANCED LANDSCAPE CONSTRUCTION

Theory and techniques of a range of types of landscape construction including platforms, land stability and stabilisation, clearing and demolition, earth dams, lakes and flood levees, broadscale stormwater drainage and control, sports facilities and swimming pools, irrigation systems. Types of documentation used for the implementation of landscape works including working drawings, specifications, bills and schedules of quantities and methods of production; production of working drawings and specification of a competent standard.
Credit Points: 8 **Contact Hours:** 3 per week

PLP214 LANDSCAPE ENGINEERING

Common philosophies of civil engineering designs; site influences on structural form; residential subdivisions: structural and engineering design, services, design standards, controls; major road systems: hierarchy, route selection, design parameters, noise constraints, associated services/facilities; waste disposal: land fill; large dams, canals, marinas, coastal development: engineering constraints, design parameters, standards, erosion control methods; airfields, power reticulation-controlling authorities and legislation.
Credit Points: 4 **Contact Hours:** 2 per week

PLP215 SCHOOL FIELD TRIP

The field trip is a 7-10 day organised trip either interstate or in Queensland away from Brisbane. Environments may be natural, rural, or urban and the work and issues for discussion may relate to any or all of these. Current projects and complexity, areas of work, or contextual issues not able to be experienced locally form the major thrust of the field trip.
Credit Points: 2 **Contact Hours:** 7-10 days

PLP216 COMPUTER AIDED DATA ANALYSIS A

The development of skills and application of computer aided data analysis in landscape architecture. 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.
Credit Points: 2 **Contact Hours:** 1 per week

PLP217 COMPUTER AIDED DATA ANALYSIS B

The subject presumes not only basic understanding of the use and application of computers but also a sound knowledge of and some skill in graphic software and data input analysis in database management systems. Exploration of the types of GIS, potentials and problems, and current issues; working knowledge of ArcInfo (PC version) and current applications in landscape architecture.
Credit Points: 2 **Contact Hours:** 1 per week

PLP401 RURAL LAND USE & PLANNING

Rural land use patterns; characteristics and dynamics of rural land uses; impacts of rural resource developments. Rural land evaluation. Rural planning and characterisations of rural settlements; the rural urban fringe. Associated project and field work.
Credit Points: 4 **Contact Hours:** 1 per week

PLP402 SOCIAL PLANNING

The genesis of social welfare policies in Australia: employment, health, housing, income and education. The aims and conduct of social surveys. Community development and organisation schemes in Australia and overseas. Public participation and community action; planning aid and advocacy planning.
Credit Points: 4 **Contact Hours:** 1 per week

PLP403 PLANNING PROCESSES

Creativity, scientific method and planning method. Prediction, uncertainty, partial rationality and planning horizons. Deductive, inductive and hypothesis-based approaches to planning method. Objective formulation, data selection and analysis, resource and potential surface analysis. Policy formulation and plan generation. Evaluation monitoring and reformulation of objectives.
Credit Points: 6 **Contact Hours:** 2 per week

PLP404 THEORIES FOR PLANNING

Ideas and theories in planning; theory as a basis for practice; political and philosophical determinants of land use planning. Values in planning, models of human nature and planning's relationship to important value traditions: liberalism, utilitarianism, empiricism, idealism, socialism, conservatism; concepts of the public interest, social justice and public intervention.
Credit Points: 4 **Contact Hours:** 2 per week

PLP405 PROCEDURAL PLANNING THEORY

Theory, explanation and prescription and the development of planning and decision theory; comprehensive planning and incrementalism, flexibility and commitment, the management of uncertainty, levels of decision making: the concept of mixed scanning, strategic and local planning, procedural planning theory and recent critiques.
Credit Points: 4 **Contact Hours:** 1 per week

PLP406 PROFESSIONAL PROCEDURES & ETHICS

Nature and role of a profession and professionalisation; codes of practice and ethics; role of the expert witness; situations of professional conflict; the role of the professional planner in public and private practice; office practice and procedures, setting up an office, filing, costing, control systems, preparation of briefs, estimating.
Credit Points: 4 **Contact Hours:** 1 per week

PLP407 URBAN POLICY PROCESSES

Models of public decision making: rational, incremental, bureaucratic, etc.; roles of political, administrative and private factors in public policy-making; organisational and inter-organisational theory; ways of improving urban policy making at the organisational and inter-organisational levels: corporate planning, PPBS, management by objectives, strategic choice, etc.
Credit Points: 4 **Contact Hours:** 2 per week

PLP408 SOCIAL & POLITICAL STRUCTURE

The focus and exercise of power in society; analysis of modern industrial societies, with particular reference to Australia; structure of society, family, political groups, ethnic groups, alternative societies, etc.; relevance to and implications for statutory planning.
Credit Points: 4 **Contact Hours:** 1 per week

PLP409 EMPLOYMENT, INDUSTRY & COMMERCE

The economy and its changing structure; the labour force, including measurement and trends; industrial location with special reference to manufacturing; retail and commercial activities; other services, in-

cluding recreational industries; some contemporary problems, eg. unemployment, technological change, industry rationalisation.
Credit Points: 4 **Contact Hours:** 2 per week

PLP411 PLANNING PRACTICE & LAW (URBAN)
A problem-solving group project set in an inner metropolitan or small town location, often undertaken in conjunction with local communities and councils. The statutory basis for urban planning and development in Queensland, including land use allocation, zoning, development control, statutory and non-statutory plans, consultation and participation, and the sources and use of statistical and other data relevant to urban planning.
Credit Points: 12 **Contact Hours:** 4 per week

PLP412 PLANNING PRACTICE & LAW (REGIONAL & STRATEGIC)
The regional concept and its relevance to planning; aims of regional and strategic planning: integration of urban and rural development, reduction of regional disparities, resource development; statutory basis of strategic planning; the case of Queensland. Strategy and policy formulation in a group project relating to a specific region.
Credit Points: 12 **Contact Hours:** 4 per week

PLP413 ADVANCED URBAN STRUCTURE
Critique of models of urban land use; justice, equality and welfare in the urban context; marginalisation and polarisation of groups within society; issues related to the problems and requirements of groups such as women, children, the aged, disabled, ethnic minorities, and access to housing, transport, etc.; relevance to and implications for planners.
Credit Points: 4 **Contact Hours:** 1 per week

PLP414 RESOURCE MANAGEMENT
Aims and processes of resource management; alternative approaches and techniques, resource inventories and evaluations. Environmental impact analysis and statements, statutory requirements. Multi-purpose schemes and the planning and management of regional landscapes in Australia and overseas. Policy studies of land and other resource management schemes.
Credit Points: 6 **Contact Hours:** 2 per week

PLP415 RESEARCH METHODS & INDIVIDUAL PROJECT
The place of objectives in research method; delimitation of areas of concern; structuring the research program; identification of primary and secondary sources; purposes and limitations of analysis; inference, uncertainty and exclusion of false conclusions; selection and adaptation of techniques. Preparation of an individual research study 10-1200 words in length (or equivalent).
Credit Points: 10 **Contact Hours:** 2 per week

PLP416 URBAN POLICY IMPLEMENTATION
Overview of the roles of the three levels of government in Australia as they impact on urban policy making and implementation. Statutory authorities; the private sector; pressure groups; implementation and evaluation in the urban planning process. Development of skills for improving the implementation of urban policies, including conflict resolution and negotiation skills; case studies.
Credit Points: 4 **Contact Hours:** 1 per week

PLP418 COMPUTER APPLICATIONS IN PLANNING
Information storage and retrieval; sources of information and databases; census, local surveys, networked databases, etc. the use of information in decision making; manipulation of information by use of statistical packages, spread sheets and databases; Geographical Information Systems, and CAD, including hands on experience with drafting, digitising, etc. and the specific use of Land Information Systems.
Credit Points: 6 **Contact Hours:** 2 per week

PLP420 SCHOOL FIELD TRIP
One field course of approximately 7-10 days duration to provide a comparative dimension to students' studies and to develop skills in observation, data collection, recording and interpretation.
Credit Points: 4 **Contact Hours:** 7-10 days

PLP501 THEORY OF SITE PLANNING
Exploration of open space theory at regional and local scales; definition of spatial characteristics by edges, nodes, landmarks, districts, and paths. Sense of place; structure and form; legibility; imageability, etc.; human responses and expectations and their effects on site planning decisions.
Credit Points: 2 **Contact Hours:** 1 per week

PLP502 SITE PLANNING TECHNIQUES
Introduction to the processes of site planning and detailed site design; role and objectives of survey and analysis; types of information and the methods of processing resultant data; data analysis to generate and evaluate problem solutions in conceptual form as a basis for strategic and master planning.
Credit Points: 2 **Contact Hours:** 1 per week

PLP503 HISTORY OF LANDSCAPE DESIGN
The form, content, influencing factors, and implications of the creation and development of historically, regionally, and religiously significant consciously designed landscape throughout the world; the evolutionary processes in development of cultural landscapes.
Credit Points: 2 **Contact Hours:** 1 per week

PLP504 PLANTING DESIGN
Design characteristics and criteria. The use of plants as structural and design elements within landscape. Principles of planting design. Scale. Design for change, growth, replacement, and maintenance. Planting design in typical schemes such as streets, highways, parks, urban forecourts and interior plantscapes, gardens, and broadscale regeneration and stabilisation.
Credit Points: 3 **Contact Hours:** 1 per week

PLP505 CONSERVATION THEORY
Introduction to the concepts of conservation and preservation. Outline of the development and current status of the conservation movement. 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. Local and regional case studies.
Credit Points: 3 **Contact Hours:** 1 per week

PLP506 USER & CHARACTER DESIGN STUDIES
User behaviour and requirements using two or three city centre pedestrian spaces; use of the same loca-

tions to analyse the spaces in light of both their own inherent characters and the users needs and responses defined earlier; an introduction to the concept of abstraction; making sculptures or models expressing the spirit of the places studied earlier in the semester.
Credit Points: 8 **Contact Hours:** 3 per week

PLP507 SITE PLANNING

Application of site planning principles and theory at all scales and types of projects; site utilisation and selection; application of site survey and analysis techniques; natural and man-made influences in physical design; environmental and social implications of design decisions; siting and integrating activities, structures and services; land form manipulation. Emphasis is given to alternative concept formulation and evaluation as a critical decision-making phase of the design process.
Credit Points: 9 **Contact Hours:** 3 per week

PLP508 INTRODUCTION TO PRACTICE

The concept of professionalism and contemporary social expectations of the environmental design professions. Current issues and controversies in environmental design and planning in Australia. Roles, ranges of employment and activities within the profession. Organisation and activities of the professional institute. Future directions, potentials, and opportunities. Introduction to the range of professions associated with landscape architecture. Introduction to the importance and techniques of CVs and portfolios.
Credit Points: 4 **Contact Hours:** 2 per week

PLP509 QUANTITIES & COSTS

Measurement and costing of time, resources, and materials for professional services, production of documents and implementation of projects; techniques and tools for preliminary and detailed measurement and costing and their control; time and percentage measurement and costing of professional services; costs of documents, including relative costs of different methods of production; units of management and costing of broad development types and for more detailed design projects; techniques of cost control.
Credit Points: 2 **Contact Hours:** 1 per week

PLP510 INTRODUCTION TO LAW

Laws, regulations and their interpretation. A review of the Australian and Queensland acts, local authority by-laws and regulations of statutory authorities as they affect the built environment. Legal aspects of land and land transfer. Planning and land use regulations. Introduction to professional liability, design registration, and copyright.
Credit Points: 2 **Contact Hours:** 1 per week

PLP511 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.
Credit Points: 4 **Contact Hours:** 2 per week

PLP513 INTRODUCTION TO PLANT ECOLOGY

The individual organism as an ecological unit; life forms as an expression of environmental influences; the concept of species in plants and animals; population and population regulation; limiting factors; life cycles; pollination and dispersal; life history patterns; concept of niche; resources, competition, dynamics of plant communities; herbivore and other interactions with the fauna; introduction to ecosystems and energy and nutrient flows.
Credit Points: 4 **Contact Hours:** 2 per week

PLP514 LANDSCAPE ECOLOGY

Broad divisions of the earth related to climate and soils: biomes, formations, alliances, associations, and societies; the ecosystem concept and its development and application; plant communities as expressions of ecosystems; energy and water balance; concepts of community ecophysiology and growth equations; vegetation classification in Australia and its functional significance; ecological biogeography of Australian vegetation; classification of landscape: concepts of biogeographic regions, provinces, land systems, and land units; landscape structure and function and significance for conservation planning; landscape ecology and landscape planning practice.
Credit Points: 9 **Contact Hours:** 3 per week

PLP515 IMPACTS & ASSESSMENT

Decision-making and conflict resolution techniques relevant to land and other natural resource planning and management; analysis of ecological processes as background to assessing impact of human activities or urbanisation, resource exploitation, mining, and other landscape changes; statutory assessment systems especially those pertaining to Queensland and under Federal legislation.
Credit Points: 4 **Contact Hours:** 2 per week

PLP516 VISUAL COMMUNICATION – GRAPHICS

Lettering, layout, and visual themes in display communication; scale, emphasis, readability, and organisation of various types of information: photos, diagrams, text, sketches, plans, etc.; use of diagrams as major tools to explore and to communicate information from concepts through to physical relationships; range of sketch types and appropriateness to different types of work such as exploration of form, analysis, and communication of concepts.
Credit Points: 6 **Contact Hours:** 3 per week

PLP520 LANDSCAPE GRAPHICS

Combined application of freehand, drafting and colour techniques. The selection of colour, theme and emphasis in graphics 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.
Credit Points: 4 **Contact Hours:** 2 per week

PLP521 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.
Credit Points: 4 **Contact Hours:** 1 per week

PLP522 MEASUREMENT OF SITES

Introduction to basic equipment for site measurement: levels, staffs, chains and tapes, the prismatic compass, optical square, clinometer, range poles: their uses in horizontal and vertical measurement. Introduction to

recording of field data and the preparation of measured site drawings from recorded data.
Credit Points: 2 **Contact Hours:** 1 per week

PLP523 LANDSCAPE CONSTRUCTION 1
PLP524 LANDSCAPE CONSTRUCTION 2

Introduction to structures: definition of terms; basic actions/reactions of beams, columns, slabs, structural units, and types of structures; loadings and types including wind loading. Properties and application of common construction materials in landscape situations: concrete, masonry, stonework, timber, metalwork, glass, applied finishes; foundation soils; basic services of site storm water drainage, water, and electricity; applied systems; construction for planting and small water features. Manual techniques of land surface manipulation for site uses including building platforms, carparks, sports ovals, and surface drainage. Establishment of sound techniques of technical drawing in the preparation of construction documents.
Credit Points: 6 each subject
Contact Hours: 3 hours per week each subject

PLP551 LAND USE GENERATION

Changing patterns of urban land use, medieval to industrial revolution; segregation of land uses in planned settlements of the twentieth century; planning for urban diversity; the logic of design from values through activities to land uses; the formation of value systems; analysis and projection of activity systems; electronic communications, urban decentralisation, and emerging settlement patterns in the western world.
Credit Points: 7 **Contact Hours:** 2 per week

PLP552 INTRODUCTION TO GRAPHICS

Freehand sketching of objects from observation, rendering textured surfaces, design, developmental graphics, understanding 2 dimensional layout and competence in presentation of 2 dimensional design in reports and drawings.
Credit Points: 5 **Contact Hours:** 2 per week

PLP553 SITE PLANNING DATA & TECHNIQUES

Natural influences in physical planning: geology, climate, topography, hydrology, soils and vegetation, etc. Ecological considerations in design and development processes. Impact of natural hazards and other physical constraints on design, including air, water, and noise pollution. Impacts of development on the natural environment. Landscape evaluation techniques.
Credit Points: 3 **Contact Hours:** 1 per week

PLP554 SITE PLANNING PRACTICE

Layout of lots, buildings, roads and services; the retention of existing desirable features of the site; use of trees and other plant material; modification of land surface, eg. cut and fill; subdivision design, planning application and approval process.
Credit Points: 12 **Contact Hours:** 3 per week

PLP555 THEORY OF SITE PLANNING

Exploration of open space theory at regional and local scales; definition of spatial characteristics by edges, nodes, landmarks, districts, and paths. Sense of place; structure and form; legibility; imageability, etc.; human responses and expectations and their effects on site planning decisions.
Credit Points: 3 **Contact Hours:** 1 per week

PLP557 TRANSPORT PLANNING

Movement and its alternative modes: foot, cycle, car, bus, train, plane, pipeline, inland waterway and marine modes. The origin and destination approach to traffic management interchange studies. Inter-urban traffic and regional transport planning. This relationship between land use and traffic generation.
Credit Points: 5 **Contact Hours:** 2 per week

PLP558 POPULATION & URBAN STUDIES

Basic urban definitions, spread and characteristics of urbanisation, structure of cities and the economic and social processes at work within cities, particular aspects such as housing and gentrification, basic concepts of population and demography, familiarisation with the role of ABS and with statistical and data analysis of the Australian population, world demographic trends.
Credit Points: 10 **Contact Hours:** 3 per week

PLP559 APPLIED NATURAL SCIENCE

Applied studies in geology and geomorphology, climate and micro-climate, soils and hydrology, the broad soil and plant community associations. The influence of these systems collectively and separately on environmental design decisions.
Credit Points: 5 **Contact Hours:** 2 per week

PLP560 HISTORY OF PLANNING

Links between society; ideas and urban form. Urban evolution from ancient to modern times in Africa, Asia, Europe, America and Australasia. The industrial revolution and its effect on urban form and on planning ideas. Australian urban history and the development of environmental management and town planning in Australia.
Credit Points: 3 **Contact Hours:** 1 per week

PLP561 URBAN DESIGN

Design method, visual thinking; principles of perception and spatial arrangement; the vocabulary of design and urban imagery; design elements; the evolution of designer theory; techniques for analysing the quality of existing built environments; analysis of examples. Urban design project.
Credit Points: 18 **Contact Hours:** 3 per week

PLP562 ECONOMICS OF TOWN PLANNING

Introduction to economics. Social objectives and the role of government. The problem of negative externalities: the economic justification of the public control of development. Regional accounting, cost benefit analysis. Economics of land use; land as an economic concept, public and private costs. The real property market. Theories of land value. Land valuation theories and techniques. Land tenure: problems of compensation and recoupment of betterment. Land use controls.
Credit Points: 5 **Contact Hours:** 2 per week

PLP564 INTRODUCTION TO MAPS & AIR PHOTOS

Types of maps, their uses and limitations. Orientation scale, cartographic symbols, representation of relief, etc. grid coordinates. Vertical and oblique air photos; black and white, colour, false colour. Mosaics and stereopairs. Introduction to stereoscopy and simple mapping from air photos. Introduction to various types of remote sensing imagery available to planners.
Credit Points: 3 **Contact Hours:** 1 per week

PLP565 URBAN LAND DEVELOPMENT

Structural and engineering design requirements in urban development: roads and drainage, sewers, water, gas, electricity and Telecom services. The roles of statutory authorities: gas, electricity, water, telephone, public transport, railways, waterways, road construction authorities. Development teams: the roles of associated disciplines. The role of the private developer.

Credit Points: 3 **Contact Hours:** 1 per week

PLP566 HOUSING & COMMUNITY SERVICES

Population, dwellings and households. Techniques of analysis and projection of housing stock. 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. Social and welfare services. Planning and management aspects of welfare.

Credit Points: 5 **Contact Hours:** 2 per week

PLS102 INTRODUCTION TO TOWN PLANNING

The concept and administrative procedures of town planning; the objectives of town planning; conflicts in land use; development control; planning criteria; planning schemes; development applications and decision making.

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

PNP420 HOME ECONOMICS CURRICULUM & TEACHING STUDIES A

The subject highlights the areas of human development and social relationships; the practical skills dimensions reflected in home economics curricula in schools; the place of home economics within the current P-10 initiatives and senior schooling.

Prerequisite: Appropriate discipline studies in the undergraduate degree.

Co-requisite: EDP450

Credit Points: 24 **Contact Hours:** 6 per week

PNP421 HOME ECONOMICS CURRICULUM & TEACHING STUDIES B

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

Prerequisite: PNP420 **Co-requisite:** EDP451

Credit Points: 12 **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 is 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.

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.

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

PUB153 FOOD FOR KIDS

The effects of food on the development of children; food related issues explored from the point of their impact on social, emotional and cognitive as well as physical development and the implications for family and school personnel; the development of feeding autonomy in young children.

Credit Points: 4 **Contact Hours:** 2 per week

PUB155 CHILD SAFETY

An examination of the high percentage of childhood deaths to accidents; children as the most high-risk age group; the importance of creating an environment which reduces the risk of childhood accidents; environmental situations in which accidents are most likely to occur; prevention: falls, cuts and lacerations, electric shock, burns and scalds, poisoning, plants and animals, drowning and fire arms; application to areas such as the home, pool, road safety and the classroom.

Credit Points: 4 **Contact Hours:** 2 per week

PUB205 ENVIRONMENTAL HEALTH 5

The causative agents of communicable and noncommunicable diseases and conditions; the principles of and methods in epidemiology. The food hygiene foundation provided in PNB204 is further developed to encompass food poisoning and spoilage. Students gain a knowledge of relative pest control principles and practices, especially in relation to vectors of disease.

Prerequisites: PNB204, MSB402, PNB232

Credit Points: 30 **Contact Hours:** 16 per week

PUB206 ENVIRONMENTAL HEALTH 6

This subject develops a sound theoretical and practical knowledge of a wide range of environmental health problems which confront the community. The underlying principles of health promotion and their effective practical application are addressed. Food topics are completed by considering aspects of food production and packaging and concepts of nutrition and malnutrition. Students also gain an insight into obligations, responsibilities and ethics of professional practice.

Prerequisites: PUB250

Credit Points: 30 **Contact Hours:** 16 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.

Credit Points: 12 **Contact Hours:** 4 per week

PUB210 OCCUPATIONAL HEALTH & SAFETY 1

This subject introduces students to 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, temporal work patterns and the design and use of protective devices.
Credit Points: 8 **Contact Hours:** 4 per week

PUB211 OCCUPATIONAL HEALTH & SAFETY 2

This subject 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.
Prerequisite: PUB210 or PUB212
Credit Points: 8 **Contact Hours:** 4 per week

PUB212 OCCUPATIONAL HEALTH AND SAFETY 1

The basic concepts and theoretical framework of occupational health and safety as noted in PUB210. The subject also 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.
Credit Points: 12 **Contact Hours:** 4 per week

PUB220 MEDICAL TERMINOLOGY

This subject is designed to enable the student to understand, define, spell and pronounce terms related to the diseases and systems of the body, the activities of health professionals and medical technology. A thorough knowledge of medical terminology is necessary for health information managers and health administrators to communicate effectively with other health care professionals and contribute to health care planning, evaluation and research studies.
Credit Points: 12 **Contact Hours:** 3 per week

PUB233 INFORMATION, EDUCATION AND 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.
Credit Points: 12 **Contact Hours:** 3 per week

PUB241 HEALTH STUDIES 1

An overview of the nature of health in Australian society. This subject serves as the foundation study in this minor from which a number of separate, more detailed studies emerge in level 2 and 3 subjects. It is considered that an understanding of broad health issues and problems is essential to equipping health educators for their roles in promoting optimal health of Australians, viz, addressing prevention of major risk factors, and developing a commitment to promoting healthy lifestyles.
Credit Points: 8 **Contact Hours:** 3 per week

PUB272 HOME ECONOMICS CONSUMER STUDIES

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.
Credit Points: 12 **Contact Hours:** 4 per week

PUB274 HOME ECONOMICS ISSUES

Introduction to the nature of sociology and psychology; social image; social control; deviance; environmental planning and human behaviour; family patterns; gender roles and relationships; work and unemployment in relations to home economics.
Credit Points: 12 **Contact Hours:** 4 per week

PUB276 DESIGN STUDIES

Art elements and principles; qualities of natural and non-natural materials; design process; design presentation; effects of changing technology on form and construction; ergonomics.
Credit Points: 12 **Contact Hours:** 4 per week

PUB299 HEALTH INFORMATION MANAGEMENT 1

An introduction to the principles of health record management and their application in hospitals. The subject 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.
Credit Points: 12 **Contact Hours:** 3 per week

PUB300 POLLUTION SCIENCE 1

The causes, effects, control measures, standards and legislation relating to air pollution and noise.
Prerequisites: CHB242, PHB250
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, eg. children, diabetics, the aged and sports patients. It also provides foundation studies essential to the pre-clinical student in the diagnosis and treatment of conditions commonly manifest in the foot.
Prerequisite: PNB220 **Co-requisite:** PUB303
Credit Points: 8 **Contact Hours:** 4 per week

PUB303 CLINICAL SCIENCE 1

On completion of this subject 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 used during clinical practice.
Prerequisite: MEB031 **Co-requisite:** 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 of this subject, students should be able to understand the uses, applications, contra indications and limitations of each modality studied in direct connection with ongoing clinical studies and the theoretical component of podiatric medicine lectures.
Prerequisite: PNB435
Co-requisite: PUB504, PUB410
Credit Points: 8 **Contact Hours:** 3 per week

PUB306 PHARMACOLOGY

This subject is 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 relevance 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.
Prerequisite: CHB242 **Co-requisite:** MSB471
Credit Points: 8 **Contact Hours:** 3 per week

PUB310 HOME ECONOMICS CURRICULUM & TEACHING STUDIES 1

Builds on CUB301 to give a greater understanding of the nature of home economics as an applied curriculum area. Provides insights into relevant Queensland syllabus and curriculum documents, develops competencies in planning and teaching and makes close links with teaching practice.
Prerequisites: CUB301 and at least 48 credit points in each relevant discipline area.
Credit Points: 8 **Contact Hours:** 3 per week

PUB311 HOME ECONOMICS: CONCEPTUAL FOUNDATIONS

This subject is designed to empower future home economics teachers to make such decisions; as such the subject explores the conceptual basis of home economics. The underlying concepts are explored in depth and linked to practical application.
Credit Points: 8 **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. This subject provides students with generic design knowledge as well as experience in the application of this knowledge in the specific areas of home economics.
Credit Points: 8 **Contact Hours:** 3 per week

PUB315 HOME ECONOMICS – SCIENCE FOUNDATIONS

Major concepts in physical and inorganic chemistry as they relate to home economics systems; conceptual framework for the chemistry of carbon compounds; application of concepts to an introductory study of more complex macromolecular structures in chemical and biological systems; fundamental concepts in physics: forces, energy, fluids, pressure, heat, temperature, electromagnetic radiation and electricity: as related to the study of home economics.
Credit Points: 8 **Contact Hours:** 4 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 optimising of well-being.
Credit Points: 8 **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.
Prerequisite: PUB315
Credit Points: 12 **Contact Hours:** 6 per week

PUB320 HOME ECONOMICS CURRICULUM & TEACHING STUDIES 2

Studied in association with CUB302. Provides opportunities for consideration and practical application of broad curricular and teaching principles and systems policies within the more specific context of this curriculum area. As with CUB302, establishes principles used to guide school experience during teaching practice and also as a beginning teacher.
Prerequisite: PUB310
Co-requisites: CUB302, EDB302
Credit Points: 12 **Contact Hours:** 3 per week

PUB321 TEXTILES 1

The scientific understanding and aesthetic aspects of textiles and their selection, use and care, with reference to specific end uses; practical aspects of construction and surface design of textile articles; textile project.
Prerequisite: PUB311
Credit Points: 12 **Contact Hours:** 6 per week

PUB323 HOME ECONOMICS: SOCIAL FOUNDATIONS

Home economics is concerned with the well-being of individuals and families. In order 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. In this subject these issues are examined within the context of home economics.
Prerequisite: PUB311
Credit Points: 8 **Contact Hours:** 3 per week

PUB325 SHELTER STUDIES

The critical aspects of shelter as a fulfilment of people's basic needs; design, technology and relevant legislation linked to decisions affecting provision of shelter for the differing needs of individuals and families.
Prerequisite: PUB311
Credit Points: 8 **Contact Hours:** 4 per week

PUB327 HEALTH ISSUES IN AUSTRALIA

Major health concerns of Australians; 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.
Credit Points: 12 **Contact Hours:** 3 per week

PUB328 CONTEMPORARY INFLUENCES ON HEALTH STATUS

The concept of contemporary social, economic and political influences on well-being. It further explores major, contemporary health concerns resulting from these influences.
Credit Points: 12 **Contact Hours:** 3 per week

PUB329 FOUNDATIONS OF HEALTH STUDIES & HEALTH BEHAVIOUR

Consideration of the foundations of the discipline of health education, its theoretical framework and concepts of models of health, health education and health promotion.
Prerequisites: SSB922, PUB327
Co-requisite: HMB305
Credit Points: 12 **Contact Hours:** 3 per week

PUB330 HOME ECONOMICS CURRICULUM & TEACHING STUDIES 3

Last in the Curriculum and Teaching Studies series with a major focus on contemporary issues and emerging trends pertaining to curriculum development in this curriculum area. Includes study of advanced planning and teaching strategies and provides opportunities for application of planning and teaching skills during practice teaching.
Prerequisites: PUB310, PUB320, CUB302
Credit Points: 8 **Contact Hours:** 3 per week

PUB331 SHELTER DESIGN

The linking of human physical and psycho-social 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.
Credit Points: 12 **Contact Hours:** 4 per week

PUB333 SHELTER: CULTURAL & HISTORICAL CONTEXTS

Investigatation of shelter decisions based on historical and cultural factors, integrating the effect technological advances have had on this. It considers possible future shelter options given the impact of historical and cultural factors.
Prerequisite: PUB325
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.
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.
Credit Points: 12 **Contact Hours:** 3 per week

PUB336 WOMEN'S HEALTH

Exploration of the data and health issues related to women's health and critically evaluates health-related policies, systems and practices in terms of their impact on women's health.
Credit Points: 12 **Contact Hours:** 3 per week

PUB337 HEALTH NEEDS OF SPECIFIC POPULATIONS

The health needs of a range of specific population groups and considers the broad picture of actual differences in health status among population groups.
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 and examines models and strategies to address these issues.
Credit Points: 12 **Contact Hours:** 3 per week

PUB340 HEALTH EDUCATION CURRICULUM AND TEACHING STUDIES 1

Builds on Introduction to Curriculum and Teaching Studies to give a greater understanding of the nature of health education as an applied curriculum area. Provides insights into relevant Queensland syllabus and curriculum documents, develops competencies in planning and teaching and makes close links with teaching practice.
Prerequisites: Introduction to Curriculum and Teaching Studies and at least 48 credit points in each relevant discipline area.
Credit Points: 8

PUB345 FAMILY RELATIONSHIPS

This subject prepares teachers for the teaching of the Family Studies component of Home Economics. Drawing from the psychological and sociological disciplines, it examines such issues as power, dominance and submission that occur in families and society. Dynamics which operate between individuals is also considered.
Prerequisite: PUB323
Credit Points: 12 **Contact Hours:** 4 per week

PUB347 FAMILIES IN OTHER CULTURES

Individuals, the structured elements within families and the relationship of families to society; kinship, family structures, mate selection practices, legitimacy and illegitimacy, contemporary issues that relate to family groups.
Credit Points: 12 **Contact Hours:** 4 per week

PUB349 FAMILIES & HOUSEHOLDS IN AUSTRALIA

Home economics is concerned with the well-being of individuals and families. This subject examines the emphasis of the family in home economics. A number of perspectives are considered including: structural functionalist, symbolic interactional, conflict and feminist. The question is asked whether the family provides an appropriate orientation for home economics.
Prerequisite: PUB349
Credit Points: 12 **Contact Hours:** 4 per week

PUB350 HEALTH EDUCATION CURRICULUM & TEACHING STUDIES 2

Studied in association with CUB302. Provides opportunities for consideration and practical application of broad curricular and teaching principles and policies within the more specific context of this curriculum area. As with CUB302, it establishes principles used to guide school experience during teaching practice and also as a beginning teacher.
Prerequisite: PUB340
Co-requisites: CUB302, EDB302
Credit Points: 12 **Contact Hours:** 3 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.
Prerequisite: Any Level 1 Science subject
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.
Prerequisite: PUB319
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 lifecycle and the environmental factors which impinge on realisation of these needs and (2) the aetiology, incidence, outcomes and management of diet-related disorders.
Prerequisite: PUB319 **Co-requisite:** PUB334
Credit Points: 12 **Contact Hours:** 4 per week

PUB360 HEALTH EDUCATION CURRICULUM & TEACHING STUDIES 3

Last in the Curriculum and Teaching Studies series with a major focus on contemporary issues and emerging trends pertaining to curriculum development in this curriculum area. Includes study of advanced planning and teaching strategies and provides opportunities for application of planning and teaching skills during practice teaching.
Prerequisites: PUB340, PUB350, CUB302
Credit Points: 8 **Contact Hours:** 3 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.
Prerequisite: PUB321
Credit Points: 12 **Contact Hours:** 4 per week

PUB363 CONSUMER TEXTILES

Technological advances in the production of textiles with particular reference to fibres, yarns, fabric, finishing and dyeing; consumer protection legislative and regulatory framwork with particular reference to textile products; textile performance requirements of these major consumer textile end-uses; experimental evaluation of textiles for suitability of purpose; development of problem identification and solution skills in consumer textiles through a major project-based assignment.
Prerequisite: PUB361
Credit Points: 12 **Contact Hours:** 3 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.
Credit Points: 12 **Contact Hours:** 3 per week

PUB367 MENSWEAR 1

This subject offers students an opportunity to develop expertise in the area of men's fashion design. Students implement the design process through the production of apparel items. Emphasis is placed on production techniques used in a studio environment.
Prerequisite: PUB321 or PUB572
Credit Points: 12 **Contact Hours:** 4 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.
Prerequisite: PUB321 or PUB572
Credit Points: 12 **Contact Hours:** 3 per week

PUB372 SHELTER

Housing tenure; advantages and disadvantages of ownership/tenancy; housing finance; housing for special groups; special needs in housing; interior environment; housing heritage.
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.
Prerequisite: PUB274
Credit Points: 12 **Contact Hours:** 4 per week

PUB376 PRACTICUM 1

Experience in working in industry, commerce or government; placement at two different organisations each for two weeks.

PUB381 INTRODUCTION TO APPAREL DESIGN & PRODUCTION

This subject 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.
Prerequisite: PUB361
Credit Points: 12 **Contact Hours:** 4 per week

PUB399 HEALTH INFORMATION MANAGEMENT 2

This subject is designed to provide the student with an understanding of specialised medical and health record systems and techniques, particularly data capture techniques and models. The students study clinical classification principles and systems used in the retrieval of health information for research, evaluation, planning and statistical collection in the health services.
Prerequisites: PUB299 and PUB220
Credit Points: 12 **Contact Hours:** 3 per week

PUB404 CLINICAL SCIENCE 2

At this stage students will be 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.
Prerequisite: PUB303 **Co-requisite:** PNB506
Credit Points: 12 **Contact Hours:** 9 per week

PUB405 HUMAN NUTRITION 2

An extension of PUB305. The role of nutrients in the maintenance of life; growth and the normal function of the human body; the social influences on food selection; nutritional impact of technology; nutrition guidelines for groups within the community.
Credit Points: 12 **Contact Hours:** 5 per week

PUB410 MEDICINE

Following completion of this subject students should be able to recognise and understand the clinical features, pathogenesis and significance of common conditions affecting the lower limbs, eg. 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.
Prerequisites: MSB430, PNB435
Co-requisite: PUB503
Credit Points: 8 **Contact Hours:** 3 per week

PUB411 ORTHOPAEDICS

The emphasis of this subject is on orthopaedic surgery. It seeks to develop 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, ie. diabetes. In addition the subject 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.
Prerequisites: PUB503, PHB313
Co-requisite: PUB505
Credit Points: 8 **Contact Hours:** 3 per week

PUB412 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.
Credit Points: 12 **Contact Hours:** 3 per week

PUB414 HOME ECONOMICS APPLIED CURRICULUM

Issues and problems relating to home economics education; bases for curriculum decision making; nature and structure of home economics; syllabus implementation; student needs; innovation; and assessment procedures.
Prerequisites: CUB410 or equivalent plus HS2002 or equivalent (Diploma of Teaching).
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 presenting to the podiatrist. On completion, students should be able to develop an understanding of the biomechanical principles affecting the joints of the foot and the structural and functional consequences presenting in podiatric practice.
Prerequisite: PUB302 **Co-requisite:** PUB404
Credit Points: 12 **Contact Hours:** 6 per week

PUB422 PODIATRIC ANAESTHESIOLOGY

This subject is designed to provide 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.
Prerequisite: PUB421 **Co-requisite:** PUB410
Credit Points: 8 **Contact Hours:** 2 per week

PUB423 FOOD AND NUTRITION

Nutrition is an important factor in the provision of health, and in the prevention and management of many disease states. This subject provides an overview of concepts which are 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 five food groups; food selection to provide a healthy diet; nutrient requirements in particular clinical situations.
Prerequisites: Physiology and Pharmacology
Credit Points: 8 **Contact Hours:** 3 per week

PUB430 APPLIED HEALTH CARE ANALYSIS

This subject is an introduction to epidemiology and biostatistics. Descriptive and analytical epidemiological methods used in the study of acute and chronic disease and in health services planning are studied. The statistical techniques appropriate to public health problems are included at an introductory level.
Prerequisite: MNB382
Credit Points: 12 **Contact Hours:** 3 per week

PUB431 HEALTH CARE ECONOMICS 2

The objective of this subject is to follow up and continue the study of economics as applied to health care. Advanced level studies in health economics are critically examined.
Prerequisite: MNB331
Credit Points: 12 **Contact Hours:** 3 per week

PUB440 CLOTHING DESIGN

Clothing design offers an opportunity for teachers to study in this area at a greater depth than that available in the pre-service subjects. It allows for critical evaluation of influences of the fashion industry, pattern making, clothing construction and the teaching strategies and resources available.
Credit Points: 12 **Contact Hours:** 3 per week

PUB441 NUTRITION EDUCATION

Biochemical approaches to nutrition; history and evolution of nutrition; critical evaluation of popular nutrition literature; development of a philosophy of nutrition.
Credit Points: 12 **Contact Hours:** 3 per week

PUB472 TEXTILE SCIENCE

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.
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; individual research.
Prerequisite: CH3025
Credit Points: 12 **Contact Hours:** 6 per week

PUB476 NUTRITION

Simple tools used in nutrition education: food groups and food composition tables; role of nutrients in the Australian diet; function of water in human systems; energy requirements; individual research.
Credit Points: 12 **Contact Hours:** 4 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.
Prerequisite: MB3025
Credit Points: 12 **Contact Hours:** 3 per week

PUB481 POLLUTION SCIENCE 2

The causes, effects, control measures, standards and legislation relating to water pollution and solid and hazardous wastes.
Prerequisites: CHB242, PHB250
Credit Points: 12 **Contact Hours:** 5 per week

PUB482 OCCUPATIONAL HEALTH

The basic concepts of toxicology and the body's responses to toxic substances; the basic disease processes in humans and the various agents in the workplace capable of adversely affecting the health of workers.
Prerequisite: PUB211
Co-requisites: PUB232, MSB402
Credit Points: 12 **Contact Hours:** 6 per week

PUB483 HUMAN FACTORS 1

The normal structure and function of relevant systems within the human body and the ways in which the work environment can impinge on normal functions; develops an appreciation of the multiple interfaces between humans, machines and the environment; the principles of manual handling and the effects of such physical factors as lighting, temperature and humidity on human performance.
Prerequisite: MEB035
Credit Points: 8 **Contact Hours:** 4 per week

PUB485 OCCUPATIONAL HYGIENE 1

This subject applies the practical skills students have already obtained from Chemistry 1 and 2 and Physics 1H & 2H to the field of occupational hygiene. It is intended to introduce students to the uses and limitations of a range of sampling and analytical equipment in the measurement and assessment of workplace contaminants.
Prerequisite: CHB242
Credit Points: 8 **Contact Hours:** 4 per week

PUB499 HEALTH INFORMATION MANAGEMENT 3

This subject is designed to enable students to recognise and use effectively all types of classification systems utilised for the retrieval of health information. It builds on the student experience from PUB399 by refining and enhancing practical coding skills. It explores the use of coded data in case mix, particularly diagnosis related groups. The examination of specialised types of health records within hospitals, special purpose health record systems outside hospitals and systems for the registration and notification of disease is linked with the specialised classification systems developed to aid the retrieval of information from these various health information systems.
Prerequisite: PUB399
Credit Points: 12 **Contact Hours:** 3 per week

PUB502 DERMATOLOGY

This subject is designed to provide 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, vasculities, 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 students the opportunity to see and diagnose many of these conditions.
Prerequisites: PUB410, PUB421
Co-requisite: PUB503
Credit Points: 8 **Contact Hours:** 3 per week

PUB503 PODIATRIC MEDICINE 3

This subject develops the professional understanding of the general and specific effects of medical and surgical conditions on the human foot. It also expands the concept of total case management in terms of the interdisciplinary approach. Including physical, mechanical and surgical techniques. On completion of this subject students should be able to consolidate the podiatrist's role in the health care team across the spectrum of practice.
Prerequisite: PUB421 **Co-requisite:** PNB504
Credit Points: 8 **Contact Hours:** 3 per week

PUB504 CLINICAL SCIENCE 3

On completion of this subject 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.
Prerequisites: PUB404, PUB421
Co-requisite: PUB304
Credit Points: 8 **Contact Hours:** 12 per week

PUB505 PODIATRIC SURGERY

The implementation of podiatric surgical techniques based on a strong theoretical component of knowledge. At the conclusion of this course students to understand the principles and techniques of minimal incision surgery.
Prerequisites: PUB422, PUB410
Co-requisite: PUB603
Credit Points: 8 **Contact Hours:** 3 per week

PUB512 HUMAN FACTORS 2

The application of psychology to the industrial environment; an examination of the key individual, social and organisational factors contributing to health and safety at work; the causes of stress, information processing and learning, performance abilities and work schedules.
Prerequisites: MNB067, PUB483
Credit Points: 12 **Contact Hnurs:** 6 per week

PUB513 EPIDEMIOLOGY AND DISEASES

This subject is designed to enable students to become familiar with the terminology used in the epidemiology and the study of diseases. The subject includes the conducting of various types of study including the analysis of data in the workplace. The topics cover 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.
Credit Points: 12 **Contact Hours:** 6 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.
Prerequisites: MEB035, PHB404
Credit Points: 12 **Contact Hours:** 6 per week

PUB518 FOOD HYGIENE STUDIES
The various types of food poisoning; food poisoning investigation techniques; laboratory procedures and interpretation of results.
Prerequisites: PNB207, PNB318, PNB418, MSB402
Credit Points: 8 **Contact Hours:** 4 per week

PUB520 ENVIRONMENT HEALTH MANAGEMENT 1
The management of an environmental health unit; the various legal procedures associated with the duties of environmental health officers, and aspects of town planning.
Prerequisites: PUB207, PUB481
Credit Points: 12 **Contact Hours:** 5 per week

PUB528 HEALTH ADMINISTRATION PROJECT
This subject enables students to do follow-up work of a practical nature in an area of interest to them. Before being admitted to this subject, 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, eg. health economics, law, health finance, health information management, health management, statistics, epidemiology, either individually or in small groups. Projects must have prior approval and will be closely supervised. Being of a practical nature, projects are undertaken in a health or medical care delivery setting, eg. hospital medical record department; group practice; local authority health department, State health department.
Credit Points: 12 **Contact Hours:** 3 per week

PUB531 HEALTH CARE ECONOMICS 1
Application of economic analysis to the health care industry. It includes an examination of the demand for health care, the supply of health care, and the market for health care.
Prerequisite: MNB151
Credit Points: 12 **Contact Hours:** 3 per week

PUB533 INTERNATIONAL HEALTH CARE SYSTEMS
The objective of this subject is to make 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, eg. 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.
Credit Points: 12 **Contact Hours:** 3 per week

PUB540 HOME ECONOMICS COUNSELLING
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.
Credit Points: 12 **Contact Hours:** 3 per week

PUB542 ADVANCED COUNSELLING SKILLS
This subject provides the opportunity to integrate and practice understanding of the basic skills of counselling in order to increase students' understanding of the counselling process. The subject provides opportunity for students to observe and practice these basic skills. The focus of the unit is specifically on the use of these skills and theoretical concepts are examined within the context of the counselling process.
Credit Points: 12 **Contact Hours:** 3 per week

PUB546 SOCIOLOGY OF PUBLIC HEALTH
The sociological principles and methods to deal with issues arising from the health and well-being of the community. It examines the ways in which the organisation of health care reflects particular assumptions concerning the nature of health and health work and reinforces these understandings. It explores the extent to which sociological understandings can be of value to health workers and planners.
Credit Points: 12 **Contact Hours:** 3 per week

PUB552 SOCIAL NUTRITION
Evaluation of nutritional information; psychology of food; methods of assessing nutritional status; nutritional disorders; community, remedial and nutrition education programs.
Prerequisite: PUB476
Credit Points: 12 **Contact Hours:** 4 per week

PUB554 FOOD MANAGEMENT FOR FAMILIES
Food habits and attitudes; social and cultural influences; role of the family in developing food habits; nutritional requirements of different age groups; principles of meal management and meal planning; adaptation of meals to special groups.
Prerequisites: PUB474, PUB476
Credit Points: 12 **Contact Hours:** 5 per week

PUB556 FOOD PRODUCTION & PRESENTATION
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.
Prerequisite: PUB474
Credit Points: 12 **Contact Hours:** 6 per week

PUB560 TEXTILE MARKETING
Theories of clothing consumption; factors affecting individual and family clothing expenditure; standard sizing; pattern styling techniques; preparation of a brief.
Prerequisite: PUB572
Credit Points: 12 **Contact Hours:** 3 per week

PUB572 APPAREL DESIGN
Factors influencing garment and household goods designs; design development; yarn structure; techniques of fabric construction and decoration; the textile industry.
Credit Points: 12 **Contact Hours:** 5 per week

PUB574 FAMILY RESOURCE MANAGEMENT

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.
Prerequisite: MG3025
Credit Points: 12 **Contact Hours:** 3 per week

PUB576 PRACTICUM 2

Experience in working in industry, commerce or government; placement in one organisation for six weeks.
Prerequisite: PUB376

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.
Prerequisite: ACB383 or ACB110
Credit Points: 12 **Contact Hours:** 3 per week

PUB582 ADVANCED APPAREL DESIGN

The design and production of a range of apparel suitable for a specific client group for example: corporate wear; department store; large mass market. The process involves detailed research of client needs, textile specification and evaluation and costing. The subject develops to an advanced level knowledge, understanding and processes established in PUB572.
Prerequisite: PUB572
Credit Points: 12 **Contact Hours:** 5 per week

PUB585 OCCUPATIONAL HYGIENE 2

Continuation of PUB985; concentrates on the application of the principles to which the student has already been introduced. The subject extends the student's ability to recognise, evaluate and suggest the most efficient control strategies for physical and chemical hazards in the working environment. It includes an analysis of the principles and design of ventilation systems. The subject examines the elements of successful monitoring programs in the workplace.
Prerequisites: PUB482, MSB402, PUB485
Credit Points: 12 **Contact Hours:** 6 per week

PUB590 PRODUCT DEVELOPMENT

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

PUB592 INDEPENDENT HOME ECONOMICS STUDY 1

Self-initiated and self-directed academic study in an area of interest consistent with the overall aims of the course.
Credit Points: 12 **Contact Hours:** 1 per week

PUB594 INDEPENDENT HOME ECONOMICS STUDY 2

Self-initiated and self-directed academic study in an area of interest consistent with the overall aims of the course.
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.
Prerequisite: 16 subjects in BBus (Health Administration).
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.
Prerequisites: PUB503, PUB410
Co-requisite: PNB411
Credit Points: 8 **Contact Hours:** 3 per week

PUB603 CLINICAL SCIENCE 4

This subject is designed to prepare the student for the transition to private practice. During this semester 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.
Credit Points: 8 **Contact Hours:** 9 per week

PUB605 HEALTH MANAGEMENT 2

This subject involves a problem-solving approach to decision making and strategic management in health services administration. Case studies and projects are used to allow students to apply theory to practical situations. Specific management techniques and current health management issues are explored.
Prerequisite: PUB600
Credit Points: 12 **Contact Hours:** 3 per week

PUB610 PROJECT & PROFESSIONAL MANAGEMENT

The two component parts of this subject explain 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 aims to develop 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.
Credit Points: 8 **Contact Hours:** 3 per week

PUB611 HAZARD ASSESSMENT AND MANAGEMENT

The history of accident causation theory. It provides students with a knowledge of the analytical techniques for accident prevention and develops their skills for recording, analysing and reporting accident information. The subject is also intended to enhance the students' understanding of the principles of hazardous chemicals management.
Prerequisite: PHB404
Credit Points: 12 **Contact Hours:** 6 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.
Prerequisite: MNB067
Credit Points: 8 **Contact Hours:** 3 per week

PUB613 OCCUPATIONAL HEALTH & SAFETY PRACTICE 2

Enables students to apply theoretical knowledge; uses field studies and exercises to further extend students' competence in the practical application of the various principles of occupational health and safety in the workplace. It also examines the current issues in the field of occupational health and safety and aims to equip students to play a role in debates on these issues.
Prerequisite: PUB516
Credit Points: 8 **Contact Hours:** 3 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.
Prerequisites: PNB482, MEB035, PHB404
Credit Points: 8 **Contact Hours:** 6 per week

PUB617 OCCUPATIONAL HEALTH & SAFETY PROJECT

Continuation of the project commenced in the subject Project 1. It includes the analysis of the material relevant to the problem selected by the student and the presentation of verbal and written reports outlining the findings of the investigation.
Credit Points: 12 **Contact Hours:** 6 per week

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.
Prerequisite: ISB392
Credit Points: 12 **Contact Hours:** 4 per week

PUB619 HEALTH INFORMATION MANAGEMENT 4

The role and functions of the medical record administrator in the management of health care services. Topics include: the legal and ethical implications of health information management; extended care facilities and their special needs; occupational health and health records for industry; health records for community/primary care units; the potential of modern technology in the effective running of health information services. The clinical classification component concentrates on nostologic problem solving, collection strategies for disease and operation indices and the practical application of classifications in health care settings.
Prerequisite: MNB519
Credit Points: 12 **Contact Hours:** 3 per week

PUB620 ENVIRONMENTAL HEALTH MANAGEMENT 2

Integration of the student's theoretical understanding of physical and biological sciences and application of such understanding to the management of a range of environmental health problems encountered in the professional practice of an environmental health officer.
Prerequisites: PUB520, PUB481
Co-requisite: 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 subjects for the purpose of practical demonstration, evaluation and professional experience.
Prerequisites: PUB481, PUB520
Co-requisite: 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.
Prerequisite: PUB520
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.
Prerequisite: PNB305
Credit Points: 12 **Contact Hours:** 5 per week

PUB634 HEALTH SERVICES EVALUATION

This subject is a study of process evaluation, program evaluation and evaluation research with applications to the health field. It is 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 course. Specific topics such as quality assurance, utilisation, review and accreditation are addressed.
Prerequisite: PUB643
Credit Points: 12 **Contact Hours:** 3 per week

PUB643 HEALTH SERVICES PLANNING

This subject deals with the administrator's role in the planning and development of health care facilities and health services. It includes an examination of the reasons for planning, the concepts and principles of planning and the types and categories of planning applied to the health industry.
Prerequisites: PUB130, PUB430
Credit Points: 12 **Contact Hours:** 3 per week

PUB672 RESEARCH METHODS

Introduction to research; research in home economics; theoretical elements of research; research types or settings; sampling and measurement; methods of data collection; analysis and interpretation of data; planning and design of a major research project.
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.

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

PUN101 ENVIRONMENTAL HEALTH

Currently, there is heightened awareness about the nature of industrialised human activity and its impact upon natural resources and human health. Nurses have traditionally been concerned with the provision of an environment which is conducive to the promotion, maintenance and/or restoration of health. Thus, an understanding of contemporary environmental health issues is vital to the provision of effective health care which meets the needs of today's society. Content is selected from an introduction of ecosystems or environmental factors and human health.

Credit Points: 6 **Contact Hours:** 1.5 per week

PUN102 NUTRITION & LIFESTYLE

A wide variety of illness has its basis in inappropriate nutrition. In this subject, particular emphasis is placed on current trends in nutrition epidemiology in order to assist practising nurses in their health education efforts with clients.

Credit Points: 6 **Contact Hours:** 1.5 per week

PUN601 CONTEMPORARY HEALTH CARE ISSUES

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.

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.

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

PUN608 ECONOMICS & HEALTH

The role of economics in planning and decision making in health care; application of economic analysis to the health care industry; issues related to the demand for health care; the supply of health care and the market for health care.

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.

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

PUN610 HEALTH SERVICES MANAGEMENT

Evolution and changing status of management in health services; interactions between general managers, doctors and others; power/authority concepts; leadership and leadership styles; principles of motivating people and managing conflict; effective decision making by individuals and groups; theories and methods of effective communication, both verbal and written; performance assessment and outcome measures in health management.

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

PUN611 ADVANCED HEALTH PLANNING

The planning of action programs of prevention, care and cure; students taking this subject will previously have studied the determination of health needs using epidemiological methods. This subject has a bias towards ensuring participation in the planning process by all interests affected by the program.

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

PUN612 ADVANCED HEALTH EVALUATION

A study of evaluation research with applications to the health fields; theory and practice; the utilisation of evaluation results and the administration of evaluation studies.

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

PUP007 EPIDEMIOLOGY & ENVIRONMENTAL HEALTH

The interrelationships between disease patterns and the environment; geography, climate, transmission and the susceptible population; distribution of disease in Queensland; factors affecting such distribution.

Prerequisite: PUP010

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

PUP010 HEALTH & LIFESTYLE IN AUSTRALIA

Explanation of a broad range of factors which together define the parameters of the health educator's role in the maintenance of healthy lifestyles in a rapidly changing world; discussion and analysis of health public policy.

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

PUP011 COMMUNICATION THEORY & SKILLS

Analysis and practical experience in the development of communication skills and techniques applicable to individual, small group, community and societal levels in health education.

Prerequisite: PUP010

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

PUP012 RESEARCH & EVALUATION

Introduction to the role of research and evaluation in health education; health promotion; evaluation of health education programs; development of research skills to interpret and analyse current literature in the field; basic statistical methods.

Prerequisite: PUP010

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

PUP013 HEALTH EDUCATION & THE CHANGE PROCESS

Analysis of the process of change as it relates to individual, group and organisational contexts; the role of the health educator as a change agent; the nature of change; how change can be achieved and factors that undermine or negate change.

Prerequisite: PUP010

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

PUP016 COMMUNITY HEALTH EDUCATION

Introduction to the field of health education with a specific focus on the nature of community health education; environmental, social, political and educational elements supporting and encouraging behaviours conducive to health.

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

PUP017 COMMUNITY HEALTH PROGRAM PLANNING

Planning and implementing intervention strategies in community health; culminating subject requiring application of knowledge and skills developed over preceding terms of course. Analysis of a range of planning models in health education and health promotion.

Prerequisite: PUP016

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

PUP019 ISSUES IN HEALTH ADVANCEMENT

Consideration of healthy public policy in practice; the changing nature of the health system; contemporary issues in health advancement.

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

PUP020 HEALTH PROMOTION STRATEGIES FOR DIETITIANS

Design, implementation and evaluation of health promotion strategies for dietitians. Includes case-study analysis and micro-teaching exercises.

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

PUP027 INDEPENDENT STUDY

Work in an area of particular interest relating to school or community health education or health promotion.

Credit Points: 12

PUP109 NUTRITION

A comprehensive study of the basic nutritional sciences building on students' backgrounds in physiology and biochemistry. Topics include: the composition of food; structure and function of nutrients; 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.

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.

Credit Points: 12 **Contact Hours:** 5 per week

PUP115 OCCUPATIONAL HEALTH & SAFETY ADMINISTRATION 1

This fundamental subject introduces students to basic concepts in occupational health and safety. They develop both an understanding of and skills in not only basic management principles as they apply to this discipline but also in the development and delivery of health and safety training programs. A sound foundation in the principles and practice of health promotion is also be developed.

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

PUP122 PRACTICE IN CLINICAL DIETETICS

Practical experience and seminar presentations relevant to PNP120. The course is conducted in institutions off-campus (40 hours per week for 11 weeks).

Prerequisites: Completion of all Semester 1 and Semester 2 subjects.

Credit Points: 24 **Contact Hours:** 11 weeks

PUP123 PRACTICE IN COMMUNITY NUTRITIONS

This subject enables students to gain experience of the nutrition and health care of individuals and groups in the community through off-campus practice (40 hours per week for 3 weeks).

Prerequisites: Completion of all Semester 1 and Semester 2 subjects.

Credit Points: 12 **Contact Hours:** 4 weeks

PUP126 CLINICAL DIETETICS 1

The dietetic process; the gathering of information using dietary histories; anthropometry; biochemical indices. It 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 subject students are required to attend various hospitals and other locations to interact with clients and others.

Credit Points: 12 **Contact Hours:** 5 per week

PUP127 CLINICAL DIETETICS 2

This is a continuation of PUP126. Topics includes: nutritional assessment; the management of disorders of the digestive and immune systems; renal disease; liver disease; paediatric disorders; nutritional support and hypermetabolic conditions. As part of the subject students are required to undertake various visits to hospitals and other locations to interact with clients and others.

Credit Points: 12 **Contact Hours:** 5 per week

PUP128 PRACTICAL DIETITICS

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.

Prerequisite: PNP111

Co-requisites: PNP120, PNP108

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

PUP129 FOOD SERVICE AND 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 quality assurance. As part of this subject field trips to visit various food services are undertaken.

Credit Points: 12 **Contact Hours:** 5 per week

PUP132 PRACTICE IN FOOD SERVICE MANAGEMENT

Practical experience and seminar presentations relevant to PNP137. The subject will be conducted in institutions off-campus (40 hours per week for 4 weeks).

Prerequisites: Completion of all Semester 1 and Semester 2 subjects.

Credit Points: 12 **Contact Hours:** 3 weeks

PUP215 OCCUPATIONAL HEALTH & SAFETY ADMINISTRATION 2

In this subject, students develop an understanding of both the legal framework within which the discipline operates and industrial relations concepts and practices in so far 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.
Credit Points: 12 **Contact Hours:** 3 per week

PUP250 OCCUPATIONAL HYGIENE

A course of 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.
Credit Points: 12 **Contact Hours:** 3 per week

SBB229 SOCIAL EDUCATION

Exploration of the philosophies of social education and their relationship to the development of a personal philosophy. Past, present and contemporary syllabuses. The links between social sciences and social education. The central role of reading, research and problem solving in social education. Design and implementation of evaluative devices and techniques. Unit planning and implementation.
Credit Points: 8 **Contact Hours:** 3 per week

SBB230 ENVIRONMENTAL EDUCATION

This subject 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 for children.
Prerequisites: SBB229, MDB228
Credit Points: 8 **Contact Hours:** 3 per week

SBB260 SOCIAL SCIENCES 1

Development of understandings and skills directly relevant to the needs of the P-10 social studies teachers in Queensland through the use of an integrative multi-disciplinary approach to social science education and by concentrating on developing similar key concepts and learnings which have been established as areas of national priority in schooling. This particular subject brings into focus for the primary teacher, the key concepts and issues in developing Australia as a nation and its role within the Asian-Pacific region.
Credit Points: 8 **Contact Hours:** 3 per week

SBB261 SOCIAL SCIENCES 2

Continuation of SBB260. Contemporary problems in the Australian, Asian and Pacific region; pedagogical issues of studying Australia and other countries in their political, cultural, geographical, and economic relationships. Students undertake an independent study of an area applied to an identified curriculum need within the P-10 social education framework.
Prerequisite: SBB260
Credit Points: 12 **Contact Hours:** 3 per week

SBB262 SOCIAL SCIENCES 3

Continuation of SBB261. 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 futures scenarios and contemporary issues relevant to the region, eg. population and migration, political institutions and systems, resource allocation and utilisation, sustainable development, environmental issues and strucutural change. Using their understandings from the above, together with suggestions from the Commission on the Future (Australia), teaching methods and techniques are developed for the P-10 curriculum.
Prerequisite: SBB261
Credit Points: 12 **Contact Hours:** 3 per week

SBB320 ENVIRONMENTAL EDUCATION

This subject is valuable to all educators concerned with communicating environmental knowledge, concepts, skills, attitudes and values in formal and informal learning situations. Students are encouraged to pursue the objectives of environmental education within their own subject specialisations.
Credit Points: 12 **Contact Hours:** 3 per week

SBB350 ACCOUNTING/BUSINESS MANAGEMENT CURRICULUM & TEACHING STUDIES 1

Builds on CUB301 to give a greater understanding of the nature of accounting/business management as an applied curriculum area. Provides insights into relevant Queensland syllabus and curriculum documents, develops competencies in planning and teaching and makes close links with teaching practice.
Prerequisites: CUB301 and at least 48 credit points in each relevant discipline area.
Credit Points: 8 **Contact Hours:** 3 per week

SBB351 ACCOUNTING/BUSINESS MANAGEMENT CURRICULUM & TEACHING STUDIES 2

Studied in association with CUB302. Provides opportunities for consideration and practical application of broad curricular and teaching principles and policies within the more specific context of this curriculum area. As with CUB302, establishes principles which are used to guide school experience during teaching practice and also as a beginning teacher.
Prerequisite: SBB350
Co-requisites: CUB302, EDB302
Credit Points: 12 **Contact Hours:** 3 per week

SBB352 ACCOUNTING/BUSINESS MANAGEMENT CURRICULUM & TEACHING STUDIES 3

Last in the Curriculum and Teaching Studies series with a major focus on contemporary issues and emerging trends pertaining to curriculum development in this curriculum area. Includes study of advanced planning and teaching strategies and provides opportunities for the application of planning and teaching skills during practice teaching.
Prerequisites: SBB350, SBB351, CUB302
Credit Points: 8 **Contact Hours:** 3 per week

SBB353 COMMUNICATION TECHNOLOGY CURRICULUM & TEACHING STUDIES 1

Builds on CUB301 to give a greater understanding of the nature of communication technology as an applied curriculum area. Provides insights into relevant Queensland syllabus and curriculum documents, develops competencies in planning and teaching and makes close links with teaching practice.
Prerequisites: CUB301 and at least 48 credit points in each relevant discipline area.
Credit Points: 8 **Contact Hours:** 3 per week

SBB354 COMMUNICATION TECHNOLOGY CURRICULUM & TEACHING STUDIES 2

Studied in association with CUB302. Provides opportunities for consideration and practical application of broad curricular and teaching principles and systems policies within the more specific context of this curriculum area. As with CUB302, establishes principles which are used to guide school experience during teaching practice and also as a beginning teacher.
Prerequisite: SBB353
Co-requisites: CUB302, EDB302
Credit Points: 12 **Contact Hours:** 3 per week

SBB355 COMMUNICATION TECHNOLOGY CURRICULUM & TEACHING STUDIES 3

Last in the Curriculum and Teaching Studies series with a major focus on contemporary issues and emerging trends pertaining to curriculum development in this curriculum area. Includes the study of advanced planning and teaching strategies and provides opportunities for the application of planning and teaching skills during practice teaching.
Prerequisites: MDB356, MDB357, CUB302
Credit Points: 8 **Contact Hours:** 3 per week

SBB356 ECONOMICS CURRICULUM & TEACHING STUDIES 1

Builds on CUB301 to give a greater understanding of the nature of economics as an applied curriculum area. Provides insights into relevant Queensland syllabus and curriculum documents, develops competencies in planning and teaching and makes close links with teaching practice.
Prerequisites: CUB301 and at least 48 credit points in each relevant discipline area.
Credit Points: 8 **Contact Hours:** 3 per week

SBB357 ECONOMICS CURRICULUM & TEACHING STUDIES 2

Studied in association with CUB302. Provides opportunities for consideration and practical application of broad curricular and teaching principles and policies within the more specific context of this curriculum area. As with CUB302, establishes principles which are used to guide school experience during teaching practice and also as a beginning teacher.
Prerequisite: SBB356
Co-requisites: CUB302, EDB302
Credit Points: 12 **Contact Hours:** 3 per week

SBB358 ECONOMICS CURRICULUM & TEACHING STUDIES 3

Last in the Curriculum and Teaching Studies series with a major focus on contemporary issues and emerging trends pertaining to curriculum development in this curriculum area. Includes the study of advanced planning and teaching strategies and provides opportunities for the application of planning and teaching skills during practice teaching.
Prerequisites: SBB356, SBB357, CUB302
Credit Points: 8 **Contact Hours:** 3 per week

SBB359 GEOGRAPHY CURRICULUM & TEACHING STUDIES 1

Builds on CUB301 to give a greater understanding of the nature of geography as an applied curriculum area. Provides insights into relevant Queensland syllabus and curriculum documents, develops competencies in planning and teaching and makes close links with teaching practice.
Prerequisites: CUB301 and at least 48 credit points in each relevant discipline area.
Credit Points: 8 **Contact Hours:** 3 per week

SBB360 GEOGRAPHY CURRICULUM & TEACHING STUDIES 2

Studied in association with CUB302. Provides opportunities for consideration and practical application of broad curricular and teaching principles and systems policies within the more specific context of this curriculum area. As with CUB302, establishes principles which are used to guide school experience during teaching practice and also as a beginning teacher.
Prerequisite: SBB359
Co-requisites: CUB302, EDB302
Credit Points: 12 **Contact Hours:** 3 per week

SBB361 GEOGRAPHY CURRICULUM & TEACHING STUDIES 3

Last in the Curriculum and Teaching Studies series with a major focus on contemporary issues and emerging trends pertaining to curriculum development in this curriculum area. Includes the study of advanced planning and teaching strategies and provides opportunities for the application of planning and teaching skills during practice teaching.
Prerequisites: SBB359, SBB360, CUB302
Credit Points: 8 **Contact Hours:** 3 per week

SBB362 HISTORY CURRICULUM & TEACHING STUDIES 1

Builds on CUB301 to give a greater understanding of the nature of history as an applied curriculum area. Provides insights into relevant Queensland syllabus and curriculum documents, develops competencies in planning and teaching and makes close links with teaching practice.
Prerequisites: CUB301 and at least 48 credit points in each relevant discipline area.
Credit Points: 8 **Contact Hours:** 3 per week

SBB363 HISTORY CURRICULUM & TEACHING STUDIES 2

Studied in association with CUB302. Provides opportunities for consideration and practical application of broad curricular and teaching principles and policies within the more specific context of this curriculum area. As with CUB302, establishes principles which are used to guide school experience during teaching practice and also as a beginning teacher.
Prerequisite: SBB362
Co-requisites: CUB302, EDB302
Credit Points: 12 **Contact Hours:** 3 per week

SBB364 HISTORY CURRICULUM & TEACHING STUDIES 3

Last in the Curriculum and Teaching Studies series with a major focus on contemporary issues and emerging trends pertaining to curriculum development in this curriculum area. Includes study of advanced planning and teaching strategies and provides opportunities for application of planning and teaching skills during practice teaching.
Prerequisites: PUB340, PUB350, CUB302
Credit Points: 8 **Contact Hours:** 3 per week

SBB365 LEGAL STUDIES CURRICULUM & TEACHING STUDIES 1

Builds on CUB301 to give a greater understanding of the nature of legal studies as an applied curriculum area. Provides insights into relevant Queensland syllabus and curriculum documents, develops competencies in planning and teaching and makes close links with teaching practice.
Prerequisites: CUB301 and at least 48 credit points in each relevant discipline area.
Credit Points: 8 **Contact Hours:** 3 per week

SBB366 LEGAL STUDIES CURRICULUM & TEACHING STUDIES 2

Studied in association with CUB302. Provides opportunities for consideration and practical application of broad curricular and teaching principles and policies within the more specific context of this curriculum area. As with CUB302, establishes principles which are used to guide school experience during teaching practice and also as a beginning teacher.
Prerequisite: SBB365
Co-requisites: CUB302, EDB302
Credit Points: 12 **Contact Hours:** 3 per week

SBB367 LEGAL STUDIES CURRICULUM & TEACHING STUDIES 3

Last in the Curriculum and Teaching Studies series with a major focus on contemporary issues and emerging trends pertaining to curriculum development in this curriculum area. Includes the study of advanced planning and teaching strategies and provides opportunities for the application of planning and teaching skills during practice teaching.
Prerequisites: SBB365, SBB366, CUB302
Credit Points: 8 **Contact Hours:** 3 per week

SBB368 SOCIAL SCIENCE CURRICULUM & TEACHING STUDIES 1

Builds on CUB301 to give a greater understanding of the nature of social science as an applied curriculum area. Provides insights into relevant Queensland syllabus and curriculum documents, develops competencies in planning and teaching and makes close links with teaching practice.
Prerequisites: CUB301 and at least 48 credit points in each relevant discipline area.
Credit Points: 8 **Contact Hours:** 3 per week

SBB369 SOCIAL SCIENCE CURRICULUM & TEACHING STUDIES 2

Studied in association with CUB302. Provides opportunities for consideration and practical application of broad curricular and teaching principles and systems policies within the more specific context of this curriculum area. As with CUB302, establishes principles which are used to guide school experience during teaching practice and also as a beginning teacher.
Prerequisite: SBB368
Co-requisites: CUB302, EDB302
Credit Points: 12 **Contact Hours:** 3 per week

SBB370 SOCIAL SCIENCE CURRICULUM & TEACHING STUDIES 3

Last in the Curriculum and Teaching Studies series with a major focus on contemporary issues and emerging trends pertaining to curriculum development in this curriculum area. Includes the study of advanced planning and teaching strategies and provides opportunities for the application of planning and teaching skills during practice teaching.
Prerequisites: SBB368, SBB369, CUB302
Credit Points: 8 **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.
Credit Points: 12 **Contact Hours:** 3 per week

SBB411 SOCIAL EDUCATION CURRICULUM DEVELOPMENT

This subject is designed for teachers who wish to specialise in curriculum planning in primary social studies, secondary economics, history, geography or social science, or TAFE liberal studies. Students explore recent curriculum movements in social education and relevant curriculum development projects. The subject provides advanced skills for planning a teaching subject and a work program.
Credit Points: 12 **Contact Hours:** 3 per week

SBB412 SOCIAL EDUCATION IN THE CURRICULUM

This subject provides opportunities for teachers of social education at all levels to investigate key issues and debates about social education and to refine their own purpose as social educators. The subject focuses on global challenges to social educators, the debate over the purposes and structure of social education, the place of critical thinking in the curriculum and the implications of the current P-10 initiative in Queensland.
Credit Points: 12 **Contact Hours:** 3 per week

SBB413 LEGAL STUDIES APPLIED CURRICULUM

This subject is for secondary teachers of legal studies (or intending teachers) who have no formal curriculum training in legal studies. The nature of legal studies within the school curriculum; current teaching strategies; the socio-critical approach; program planning and applications; curriculum innovation and development.
Credit Points: 12 **Contact Hours:** 3 per week

SBB440 ENVIRONMENTAL EDUCATION

This subject is valuable to all educators concerned with communicating environmental knowledge, concepts, skills, attitudes and values in formal and informal learning situations. Students are encouraged to pursue the objectives of environmental education within their own subject specialisations.
Credit Points: 12 **Contact Hours:** 3 per week

SBB441 ADVANCED SECRETARIAL STUDIES

This subject extends the professional education of teachers of secretarial studies. It focuses on the concepts and applications of office automation, the issues and implications of the implementation of technology in business organisations, and the importance of supervision and administrative practices to business organisations.
Prerequisite: Major in Commercial Studies or equivalent at Diploma of Teaching level.
Credit Points: 12 **Contact Hours:** 3 per week

SBN601 SOCIAL & ENVIRONMENTAL EDUCATION 1

An examination of the origins, development, and current scope and status of social and environmental education both as separate entities and as a unified emphasis on current social, environmental, political and economic imperatives. The importance of studies within the subject disciplines of geography, history and economics are also examined.
Credit Points: 12 **Contact Hours:** 3 per week

SBN602 SOCIAL & ENVIRONMENTAL EDUCATION 2

Exploration of the relative strengths and weaknesses of discipline-based and interdisciplinary approaches to social and environmental education through

detailed studies of the actual and potential contributions to social and environmental education of one of geography, history and economics, and identifying specific areas of interest within social and environmental education to explore in more detail in a dissertation.
Credit Points: 12 **Contact Hours:** 3 per week

SBP420 BUSINESS EDUCATION CURRICULUM & TEACHING STUDIES A

A foundation study for students wishing to teach any of the business education subjects: accounting/business management, economics, legal studies and office administration. An examination of basic teaching skills, the interactive classroom, student learning, learning environments and curriculum implications for, and applications to business education.
Prerequisite: Appropriate discipline studies in the undergraduate degree.
Co-requisite: EDP450
Credit Points: 24 **Contact Hours:** 6 per week

SBP421 ACCOUNTING & BUSINESS MANAGEMENT CURRICULUM & TEACHING STUDIES B

Provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies and examines the roles of the teacher in the community and the profession.
Prerequisite: SBP420
Co-requisite: EDP451
Credit Points: 12 **Contact Hours:** 3 per week

SBP422 ECONOMICS CURRICULUM & TEACHING STUDIES B

Provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies and examines the roles of the teacher in the community and the profession.
Prerequisite: SBP420
Co-requisite: EDP451
Credit Points: 12 **Contact Hours:** 3 per week

SBP423 LEGAL STUDIES CURRICULUM & TEACHING STUDIES B

This Curriculum B subject provides opportunities for students to critically examine and develop skills and understanding in significant areas of teaching and learning in legal studies. It provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies and examines the roles of the teacher in the community and the profession.
Prerequisite: SBP420 **Co-requisite:** EDP451
Credit Points: 12 **Contact Hours:** 3 per week

SBP424 OFFICE AUTOMATION CURRICULUM & TEACHING STUDIES B

Provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies and examines the roles of the teacher in the community and the profession.
Prerequisite: SBP420 **Co-requisite:** EDP451
Credit Points: 12 **Contact Hours:** 3 per week

SBP430 SOCIAL SCIENCE CURRICULUM & TEACHING STUDIES A

Introduction to the general field of social science education; the various ways in which the social sciences are reflected in curricula, ranging from discipline-based studies to fully integrated approaches; the complexity of factors influencing curriculum development in the social sciences. Where appropriate, these studies are based on observations and experiences within school settings. These settings also provide the context for the development of teaching approaches appropriate to the social sciences. Students become familiar with processes of curriculum development, and gain experience of those processes, particularly as they apply to the current P-10 social education initiative in Queensland.
Prerequisite: Appropriate discipline studies in the undergraduate degree.
Co-requisite: EDP450
Credit Points: 24 **Contact Hours:** 6 per week

SBP431 GEOGRAPHY CURRICULUM & TEACHING STUDIES B

Provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies and examines the roles of the teacher in the community and the profession.
Prerequisite: SBP430 **Co-requisite:** EDP451
Credit Points: 12 **Contact Hours:** 3 per week

SBP432 HISTORY CURRICULUM & TEACHING STUDIES B

This Curriculum B subject provides opportunities for students to critically examine and develop skills and understanding in significant areas of teaching and learning in history. It provides a theoretical context and considers practical applications in assessment, curriculum planning and teaching and learning strategies and examines the roles of the teacher in the community and the profession.
Prerequisite: SBP430 **Co-requisite:** EDP451
Credit Points: 12 **Contact Hours:** 3 per week

SBP433 JUNIOR SOCIAL SCIENCE CURRICULUM & TEACHING STUDIES C

This Curriculum C subject offers studies which enables appropriately qualified students to teach junior social science at lower levels of the secondary school. It allows the application of principles, skills and understandings which have been developed in the Curriculum A subject and are being expanded in the Curriculum B subject.
Credit Points: 12 **Contact Hours:** 3 per week

SBP500 CURRICULUM ISSUES IN ENVIRONMENTAL EDUCATION 1

The nature of environmental education, environmental ethics; the theoretical and practical appreciation of the issues and problems facing environmental education curriculum planners.
Credit Points: 12 **Contact Hours:** 3 per week

SBP501 CURRICULUM ISSUES IN ENVIRONMENTAL EDUCATION 2

A theoretical appreciation of, and practical exposure to, the design of environmental teaching experiences in formal and non-formal settings within subject areas. The subject builds upon the knowledge and ideas developed in SBP500.
Prerequisite: SBP500
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; development of teaching strategies and resources suitable for teaching environmental economics and ethics.
Credit Points: 12 **Contact Hours:** 3 per week

SBP503 NATURAL ENVIRONMENTAL EDUCATION ISSUES

The relationship between human beings and their natural environment; the historical development of environmental ethics; studies of current human impacts on vegetation, animal life, soils, waters, geomorphological processes and climate and the implications of these for current notions of sustainability.
Credit Points: 12 **Contact Hours:** 3 per week

SBP504 PRACTICAL & FIELDWORK IN ENVIRONMENTAL EDUCATION

Development of a range of practical and technological skills and a variety of field-based experiences to enable students to reflect on and refine their attitudes and perceptions about environmental education. Studies include rural and urban field activities.
Credit Points: 12 **Contact Hours:** 3 per week

SBP505 SOCIAL ENVIRONMENTAL EDUCATION ISSUES

Development of an understanding of people's responses to their urban environment; opportunities for decision making about the effective and sustainable use of urban environments; strategies to promote effective educational practices in the urban environment.
Credit Points: 12 **Contact Hours:** 3 per week

SCB001 LEARNING AT UNIVERSITY

A series of seminar/workshops run by the Learning Unit designed to assist students to investigate what learning at a tertiary institution involves. The aim of the subject is to introduce students to learning for understanding and integration, rather than simply for reproduction. Students with at least one subject in common are grouped together, so that material from this subject can be used to help students explore approaches to advanced reading and critical thinking skills in an applied manner. Students also develop skills in information retrieval using the University Library facilities.
Credit Points: 2 **Contact Hours:** 1 per week

SCB100 COOPERATIVE EDUCATION 2

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 his or her work supervisor at regular intervals. The student is required to complete a progressive assessment program. The student's results are determined on the basis of reports, continuous assessment, and the employer's report.
Prerequisite: Completion of 4 semesters of a standard full-time degree-level course, normally with a GPA of not less than 4.5 overall.
Credit Points: 24 per semester

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: description of the solar system, gravitation, phenomena of astronomical origin, brief introduction to stars and galaxies. Field trip.
Credit Points: 12 **Contact Hours:** 4 per week

SCB510 INTRODUCTION TO QUALITY MANAGEMENT

The philosophies, practices and tools of quality management; organisational structures; quality systems; total quality management; measurement and role of statistical methods.
Prerequisites: SCB100 and (MAB237 or MAB347)
Credit Points: 8 **Contact Hours:** 3 per week

SCB702 COMPLEMENTARY STUDIES

The subject is tailored to suit individual students: studies include a selection from: participation in research seminars; oral communication skills; written communication skills; formal coursework in occupational health and safety, scientific and industrial ethics, philosophy and methodology of science, and science policy and research funding options; development of research management strategies; preparation of a scientific paper/report; and coursework material from other accredited courses as directed by the project supervisor and Head of School. Assessed on a pass/fail basis.
Credit Points: 8 per semester
Contact Hours: 6 per week

SCB703 STUDIES IN GLOBAL SYSTEMS A

Topics of current global concern to mankind from the perspectives of each of the participating disciplines (Biology, Geology and Chemistry) including: the enhanced greenhouse effect, ozone depletion, acid rain, pollution, soil erosion, toxic wastes and their disposal, sea level changes, and the laws and treaties which relate to them. **Note:** Students undertake either SCB703 or SCB704, not both.
Credit Points: 9 **Contact Hours:** 3 per week

SCB704 STUDIES IN GLOBAL SYSTEMS B

See SCB703.
Credit Points: 6 **Contact Hours:** 2 per week

SCB705 ADVANCED MICROSCOPY TECHNIQUES

This subject describes and allows students to practise, preparative techniques relating to transmission (TEM), scanning transmission (STEM) and scanning (SEM) electron microscopy. Techniques include: specialist fixation and staining (negative and position), thin sectioning, critical point drying/freeze drying, replica production, spatter coating and metal shadowing. Each technique is applied to a range of specimens and students are familiarised with the use and manipulation of each type of microscope. The analytical capabilities of each instrument are also taught and used.
Credit Points: 9 **Contact Hours:** 4 per week

SSB000 STUDIES IN AUSTRALIAN SOCIETY I

Introduction to the nature of contemporary Australian society from a sociological perspective. The basic elements of the social structure (class, race & gender) are explored and selected social institutions described (eg. the family, work). Skills in analysing social processes at regional, state & national level are introduced.
Credit Points: 12 **Contact Hours:** 3 per week

SSB001 HUMAN DEVELOPMENT 1

Life events and transitions encountered from birth to the late teen years; theories of human development; theories of childhood and adolescence; childhood and adolescent lifestyles; values clarification regarding

children and adolescents; disturbances in childhood and adolescence.
Credit Points: 12 **Contact Hours:** 3 per week

SSB002 STUDIES IN HUMAN RIGHTS 1
Analysis of the sources and history of the idea of human rights. Exploration of the human rights traditions in non-Western and cross-cultural contexts. Examination of the International Bill of Rights. Emphasis is placed on defining political, civil, economic, social and cultural rights and applying such definitions to situations and institutions in Australia and Queensland.
Credit Points: 12 **Contact Hours:** 3 per week

SSB003 INTERPERSONAL PSYCHOLOGY 1
The inductive learning approach; models of interpersonal communication and perception; the concept of self and self-esteem; dealing with emotions – defensiveness versus openness; communication skills; questioning, attending and responding; non-verbal communication; attitudes and value clarification; self disclosure; development of relationships.
Credit Points: 12 **Contact Hours:** 3 per week

SSB004 STUDIES IN AUSTRALIAN SOCIETY 2
The theoretical perspectives in sociology on social inequality are explored and discussed. The major system institutions of Australian society are assessed in relation to their contribution to or attempts to address inequality (eg. the political system, education system, legal system, health system). The role of ideology in distorting reality is introduced.
Prerequisite: SSB000
Credit Points: 12 **Contact Hours:** 3 per week

SSB005 HUMAN DEVELOPMENT 2
Adult life and transitions; theories of adulthood; models of ageing services; human empowerment.
Prerequisite: SSB001
Credit Points: 12 **Contact Hours:** 3 per week

SSB006 STUDIES IN HUMAN RIGHTS 2
Analysis of broad-based human rights issues including discrimination, equal opportunity, sexism and racism. Specific human rights concerns such as aboriginal land rights and aboriginal deaths in custody are explored. Particular human service contexts are assessed in terms of international and domestic human rights instruments and standards.
Prerequisite: SSB002
Credit Points: 12 **Contact Hours:** 3 per week

SSB007 INTERPERSONAL PSYCHOLOGY 2
More complex communication skills and understandings; 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.
Prerequisite: SSB003
Credit Points: 12 **Contact Hours:** 3 per week

SSB008 COUNSELLING THEORY & PRACTICE
The nature of the counselling process and helping relationship; the theoretical bases of the major counselling approaches; counselling skills of the major approaches; ethical issues in counselling; counselling applied in particular situations; group counselling; change processes in counselling; sociological analysis of the role and function of counselling.
Prerequisites: SSB003, SSB007
Credit Points: 12 **Contact Hours:** 3 per week

SSB009 THE AUSTRALIAN WELFARE STATE
The origins of and the contemporary nature of the Australian welfare state; historical data on the antecedents to and stages of welfare state development; the major debates and controversies; an overview of the structural arrangements of the Australian welfare state.
Credit Points: 12 **Contact Hours:** 3 per week

SSB010 PROFESSIONAL RESOURCES 1
Resources and consumer needs; government systems; non-government systems; the family as a resource; issues of access to resources; appeal and grievance mechanisms; specific resource networks.
Credit Points: 12 **Contact Hours:** 3 per week

SSB011 CHILD & FAMILY SERVICES 1
The history of child and family services in Australia; an overview of the major service agencies and child and family problems; the family life cycle; the needs and rights of children and families; professional ethics and standards.
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; review of the principles and theoretical frameworks: normalisation, social role valorisation, etc. which underpin services. Planning around individuals; personal futures planning.
Credit Points: 12 **Contact Hours:** 3 per week

SSB013 CORRECTIVE SERVICES 1
Conception of crime; incidence of crime; causal explanations of crime; contemporary theories of crime; offender characteristics; correctional history, purpose and goals; the impact of imprisonment; the victim of crime.
Credit Points: 12 **Contact Hours:** 3 per week

SSB014 AGED SERVICES 1
Physiological, psychological, social and cultural aspects of ageing; common transitions and crises faced by the aged person, carers and families; modes of adaption and maladaption, learned helplessness in institutional life, understanding dementias, communication with and counselling of the elderly.
Credit Points: 12 **Contact Hours:** 3 per week

SSB015 MULTICULTURAL SERVICES 1
Orientation to the context, options and difficulties associated with the human service programs for a multicultural Australia; introduction to the policies, concepts and issues surrounding multicultural services; the experiences of immigration and resettlement.
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 youth-work 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.
Credit Points: 12 **Contact Hours:** 3 per week

SSB017 GROUP WORK
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 developemnt; 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.
Credit Points: 12 **Contact Hours:** 3 per week

SSB019 PROFESSIONAL RESOURCES 2

Statistics and service planning, electronic data gathering and dissemination methods; specific resource networks; evaluation of resource systems; access to resources; appeal and grievance mechanisms.
Prerequisite: SSB010
Credit Points: 12 **Contact Hours:** 4 per week

SSB020 CHILD & FAMILY SERVICES 2

The service framework and the nature of child and family service assessments and interventions in child protection work, alternative care, domestic violence, sexual abuse, divorce, juvenile justice. Refining interpersonal and group work skills necessary to promote effective client-worker relationships.
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.
Prerequisite: SSB012
Credit Points: 12 **Contact Hours:** 3 per week

SSB022 CORRECTIVE SERVICES 2

The corrective system; staff-inmate relationships; ethics and conduct; methods and approaches to maintaining discipline in a non-threatening manner; inmate views of staff; mob psychology and control.
Prerequisite: SSB013
Credit Points: 12 **Contact Hours:** 3 per week

SSB023 AGED SERVICES 2

Services available to the aged within the community and institutions; planning, implementing and evaluating needs-based services, assessment skills; policy issues and the HACC program; specific responses to the migrant, aborigines and the elderly poor.
Prerequisite: SSB014
Credit Points: 12 **Contact Hours:** 3 per week

SSB024 MULTICULTURAL SERVICES 2

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 subject promotes cultural sensitivity by exploring the social mores of Australia's ethnic minorities.
Prerequisite: SSB015
Credit Points: 12 **Contact Hours:** 3 per week

SSB025 YOUTH SERVICES 2

The cultural, gender and locational differences in the experience of young people as described through various forms of social commentary and research; current and emerging intervention strategies; their assumptions, strengths and limitations.
Prerequisite: SSB016
Credit Points: 12 **Contact Hours:** 3 per week

SSB026 FIELDWORK PRACTICE 1

A three-stage program of pre-placement tutorials, a ten-week block placement (or negotiated equivalent) in a human service setting offering a professionally supervised, contracted learning experience of human service work, and post-placement tutorials. Students acquire and integrate critical human service competencies, attitudes and knowledge. **Note:** Students who fail to achieve a satisfactory standard of performance on placement are liable to exclusion from the course.
Prerequisites: Enrolment in the Bachelor of Social Science (Human Services). All preceding subjects are prerequisites/co-requisites at the discretion of the Course Coordinator and Field Education Coordinator.

SSB027 COMMUNITY WORK

Community work as a distinct intervention skill; the background to community work in Australia; models of community work; basic skills and techniques are developed: entering a community; building community involvement; developing community action; managing common problems.
Credit Points: 12 **Contact Hours:** 3 per week

SSB028 STUDIES IN AUSTRALIAN SOCIETY 3

Introduction to the Australian Constitution and Federal system of government; examination of major Australian political institutions including Parliament and the Cabinet; analysis of the role of the judiciary and the funding and role of the public service; exploration of the electoral and industrial systems; examination of the role and structure of political parties.
Prerequisite: SSB004
Credit Points: 12 **Contact Hours:** 3 per week

SSB030 CHILD & FAMILY SERVICES 3

The Commonwealth and State legislation underpinning Child and Family Services in Queensland; models of intervention; development of service delivery skills; contemporary service philosophies and principles; interface between legislative power and facilitative helping.
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 on disability, income maintenance, housing, education, transport, employment, etc.
Prerequisite: SSB021
Credit Points: 12 **Contact Hours:** 3 per week

SSB032 CORRECTIVE SERVICES 3

The Queensland corrective services system; the social and political influences and the development of policy and services for corrective organisations within Queensland; trends and prospects; stratification within correctional service organisations; issues of communication and organisational change.
Prerequisite: SSB022
Credit Points: 12 **Contact Hours:** 3 per week

SSB033 AGED SERVICES 3

International and national trends in aged care; the use of technology to improve quality of life, administration and the creation of a humane environment; elementary accounting and budget control skills program design; the involvement of the consumer, the aged service system in the wider community welfare environment.
Prerequisite: SSB023
Credit Points: 12 **Contact Hours:** 3 per week

SSB034 MULTICULTURAL SERVICES 3

Development of the ability to critically evaluate Australia's social institutions for their relevance and fairness to ethnic minorities; exploration of contemporary principles which direct service delivery as they relate to ethnic minorities; evaluation of current methods employed to promote these principles.
Prerequisite: SSB024
Credit Points: 12 **Contact Hours:** 3 per week

SSB035 YOUTH SERVICES 3

The nature and implications of youth work within various contexts; different settings, eg. statutory and non-statutory, government and non-government; how each contributes or might contribute to individual, organisational and social objectives; skills and knowledge of particular relevance to these various settings.
Prerequisite: SSB025
Credit Points: 12 **Contact Hours:** 3 per week

SSB036 FIELDWORK PRACTICE 2

A three-stage program of pre-placement tutorials, a ten week block placement (or negotiated equivalent) in a human service setting offering a professionally supervised, contracted learning experience of human service work, and post-placement tutorials. Students consolidate and extend critical human service competencies, attitudes and knowledge. **Note:** Students who fail to achieve a satisfactory standard of performance on placement are liable to exclusion from the course.
Prerequisites: Enrolment in the Bachelor of Social Science (Human Services). All preceding subjects are prerequisites/co-requisites at the discretion of the Course Coordinator and Field Education Coordinator.

SSB037 STUDIES IN HUMAN RIGHTS 3

Examination of Federal and State institutional arrangements designed to protect and promote fundamental human rights; emphasis on understanding and operationalising legislative and administrative systems which have a particular relevance for the human rights of consumers within human service contexts.
Prerequisite: SSB006
Credit Points: 12 **Contact Hours:** 3 per week

SSB038 SOCIAL POLICY & SOCIAL CHANGE

Theoretical approaches to social change; assessment of social policy as a tool of social change generally and within Australian context; skills and techniques of applying models of social policy and program development and implementation as part of a change strategy.
Credit Points: 12 **Contact Hours:** 3 per week

SSB039 CONTEMPORARY SOCIAL POLICIES

The major debates in social policy; analysis of the manner in which Australia has resolved these and the impact on our welfare state; contemporary movements by governments and effects on broad approaches to social policy; current status of major policy areas, eg. health, income security, housing.
Credit Points: 12 **Contact Hours:** 3 per week

SSB040 CHILD & FAMILY SERVICES 4

Innovations in service delivery models; comparison of international and national trends with service delivery within Queensland; literature review; independent study-program design.
Credit Points: 12 **Contact Hours:** 3 per week

SSB041 DISABILITY SERVICES 4

Program planning, service design; coordination of services, sources of funding; advocacy, self-advocacy, group advocacy, citizen advocacy; independent study.
Prerequisite: SSB031
Credit Points: 12 **Contact Hours:** 3 per week

SSB042 CORRECTIVE SERVICES 4

Punishment versus rehabilitation; correctional options; traditional treatment programs; experimental treatment programs; traditional prison management; modern prison management; contemporary community issues; independent study.
Prerequisite: SSB032
Credit Points: 12 **Contact Hours:** 3 per week

SSB043 AGED SERVICES 4

An individual project is negotiated between the lecturer and student and is completed under supervision. The project is to encompass service delivery issues and include how work with the aged fits in with the wider Australian context. Specific attention is to be given to service philosophy.
Prerequisite: SSB033
Credit Points: 12 **Contact Hours:** 3 per week

SSB044 MULTICULTURAL SERVICES 4

The general and specific service provision systems targeted towards ethnic minorities in Australia. Students develop organisational change skills and policy analysis and development skills which they apply to a specific social program, service or policy issue.
Prerequisite: SSB034
Credit Points: 12 **Contact Hours:** 3 per week

SSB045 YOUTH SERVICES 4

Critical reflection of practice issues that emerged for students during the second field education subject. Skills and knowledge areas are identified for attention. As an outcome of the subject, students identify, document and critique a professional frame of reference and code of ethics for youth work practice.
Prerequisite: SSB035
Credit Points: 12 **Contact Hours:** 3 per week

SSB101 ENVIRONMENTAL EDUCATION

The nature of environmental education; environmental concept development of young learners; methods of teaching environmental knowledge, concepts, attitudes and behaviour; and the use of fieldwork, interpretive centres and museums in environmental eduation programs.
Credit Points: 8 **Contact Hours:** 2 per week

SSB802 TECHNOLOGY & CULTURE

Social and psychological aspects of culture; historical perspectives; the age of mechanics; the electronic revolution; political and social aspects of technology; industrialisation and the Third World; educational implications of technical change.
Credit Points: 12 **Contact Hours:** 3 per week

SSB803 SOCIAL PSYCHOLOGY

General study of social psychology and its relevance to the work and role of home economist; theory and research of group dynamics and related concepts; analysing small group development.
Credit Points: 10 **Contact Hours:** 3 per week

SSB805 PERSONAL & INTERPERSONAL CHANGE

Construction of identify, self, self-concept, self-esteem and self-development; understanding and using

a wide range of personal and interpersonal change methods, theories and approaches, together with relevant research data.
Credit Points: 12 **Contact Hours:** 4 per week

SSB806 INTERPERSONAL & GROUP PROCESSES

Understanding relationships and small group dynamics with emphasis on skill development in listening, helpful 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 group.
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.
Credit Points: 12 **Contact Hours:** 3 per week

SSB816 HUMAN RELATIONSHIPS: A SOCIOLOGICAL PERSPECTIVE

The significance of the social context to human relationships; the impact of social and demographic change on families and communities; the implications of such changes for interpersonal relationships; society and human relationships in contemporary and historical settings.
Credit Points: 12 **Contact Hours:** 4 per week

SSB903 SOCIOLOGY FOR HEALTH PROFESSIONALS

Theories and concepts of sociology are used in the analysis of the social context of health care; theoretical perspectives; social organisation; social differences and issues; the application of sociological theory to aspects of Australian society including: class and stratification, migration, sub-culture and ethnicity, crime and deviance, groups and organisations, social change.
Credit Points: 6 **Contact Hours:** 3 per week

SSB904 SOCIOLOGY OF HEALTH & ILLNESS

The social environment of health and illness and cultural aspects of health care practices; cultural definitions of health and illness; life-style factors and health; life cycle and health crises; health and social problems; health promotion; preventive care and the medical model; bureaucratisation and health care delivery; the health care professions.
Prerequisite: SSB903
Credit Points: 6 **Contact Hours:** 3 per week

SSB905 PSYCHOLOGY FOR HEALTH PROFESSIONALS

This subject 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 indivudual; communication processes; self-concept and self-esteem; protection of the ego; the impact of emotions and beliefs on health behavour; and interpersonal communication skills.
Credit Points: 8 **Contact Hours:** 3 per week

SSB906 SOCIOLOGY FOR HEALTH PROFESSIONALS

Sociological theories and methods are investigated and subsequently used to identify and analyse social relationships, social processes and social patterns relating to the social origins of illness and wellness. Analysis is undertaken into trends in morbidity and mortality in society which are not randomly distributed but associated with social structural variables such as ethnicity, gender, social class, age and geographical location. The health care system is examined internally and in relation to its utilisation by the public and its effectiveness in addressing contemporary health issues in Australia.
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.
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. Students are introduced to the practical application and limitations of behavioural studies through the use of readings and case studies drawn from the building industry. An introduction to the job and responsibilities of management; the functions and role of the manager including planning, organisation, control, budgeting and decision-making; styles of leadership. Students are introduced to employee selection training, appraising and promotion. Worker efficiency and working conditions.
Credit Points: 6 **Contact Hours:** 3 per week

SSB909 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 effective social skills in interpersonal and group settings; understand theories of attitude, change and know implications for changing the behaviour of others; use skills necessary for starting a successful small business.
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.
Credit Points: 4 **Contact Hours:** 2 per week

SSB911 GENERAL PSYCHOLOGY

This course is designed to give 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.
Credit Points: 4 **Contact Hours:** 3 per week

SSB914 PSYCHOLOGY

In studying this subject, 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.
Credit Points: 4 **Contact Hours:** 3 per week

SSB916 APPLIED COGNITIVE PSYCHOLOGY

Introduction to cognitive psychology; perception processes in cognition; memory processes in cognition; thinking processes in cognition; includes problem solving and decision making; application of cognitive psychology. Artificial intelligence, ergonomics and job design also included.
Prerequisite: MNB154 or completion of 96 credit points of degree study.
Credit Points: 9 **Contact Hours:** 2 per week

SSB918 COUNSELLING FOR HEALTH PROFESSIONALS

A study of the psychology of illness and the counselling process.
Credit Points: 4 **Contact Hours:** 2 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 and provides a framework for individuals wishing to develop professional skills in school health education.
Credit Points: 12 **Contact Hours:** 3 per week

SSP000 INTERPERSONAL RELATIONSHIPS IN COUNSELLING

Overview of concepts related to interpersonal relationships; social perception and attribution theory; self-concept and the circular process of social interaction; contemporary models of interpersonal communication; the emotions and their effects on communication; facilitating communication; interpersonal influence; defensiveness; conflict; stress; gender issues.
Credit Points: 12 **Contact Hours:** 3 per week

SSP001 THEORY & PRACTICE OF COUNSELLING 1

Overview of the counselling process; role of the major theories in counselling; micro-counselling skills; general philosophical assumptions in counselling; humanistic approaches: client-centred, Gestalt, TA); existential model. A four-day intensive practicum workshop of microskills development is a compulsory component.
Credit Points: 12 **Contact Hours:** 3 per week

SSP003 COUNSELLING & HUMAN DEVELOPMENT

Major theoretical approaches to human development; age/stage perspectives; life event and transition perspectives; individual variability perspectives; nature of research in developmental psychology; psychological transitions in the life-span; relevance of developmental theories and concepts to personal development and need; psychopathology and the life cycle.
Prerequisite: SSP001
Credit Points: 8 **Contact Hours:** 3 per week

SSP004 THEORY & PRACTICE OF COUNSELLING 2

Change processes in counselling from a brief therapy or solution-focussed perspective; emphasis on the viewing, doing and language of problems and on the narrative metaphor for counselling.
Prerequisite: SSP001
Credit Points: 12 **Contact Hours:** 3 per week

SSP005 PRACTICUM 2

Advanced skill training workshops; supervised counselling experience involving work with clients; interaction of students and supervisor.
Prerequisite: SSP001 **Co-requisite:** SSP007
Credit Points: 8

SSP006 COUNSELLING: A SOCIOLOGICAL PERSPECTIVE

Sociological analysis of counselling and the helping process in terms of the functions they serve for society; the nature of helping and the helping process; sociological conceptions of the individual; social control function of helping; medicalisation and professionalisation of helping; the effect of organisation on the helping process.
Prerequisite: SSP001
Credit Points: 8 **Contact Hours:** 3 per week

SSP007 THEORY & PRACTICE OF COUNSELLING 3

Historical development of psycho-analysis and analytic theory; psychodynamics in counselling practice; hypnosis and conscious phenomena in counselling; scientific credibility of psycho-analytic and analytic psychotherapy; neurosis and psychosis in counselling.
Prerequisite: SSP004 **Co-requisite:** SSP005
Credit Points: 12 **Contact Hours:** 3 per week

SSP009 CAREER GUIDANCE & COUNSELLING

Theoretical approaches to career guidance; developmental theories and opportunity structive theories; resources and information for career guidance; career education programs; independent research.
Credit Points: 8 **Contact Hours:** 3 per week

SSP012 THE COUNSELLOR & THE ORGANISATION

Helping organisations as bureaucracies; organisational response to social change; stress within helping organisations; teamwork among professional helpers; counsellor roles.
Prerequisite: SSP001
Credit Points: 8 **Contact Hours:** 3 per week

SSP013 INDEPENDENT STUDY

Independent counselling-related studies under the supervision of a member of staff. Studies must be approved by the course coordinator.
Prerequisite: SSP007
Credit Points: 8 **Contact Hours:** 3 per week

SSP014 FAMILY THERAPY 1

Self-awareness in family counselling; formation and models of the family; family systems perspectives and counselling approaches.
Prerequisite: SSP007
Credit Points: 8 **Contact Hours:** 3 per week

SSP016 ADVANCED PRACTICUM

Further supervision of counselling work using a group process and a focus on student's work context, personal issues and professional side.
Prerequisite: SSP005
Credit Points: 8

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.
Credit Points: 8 **Contact Hours:** 3 per week

SSP543 HEALTH PSYCHOLOGY

Current theories and developments of behavioural approaches in health care, including current learning and psychological theories pertinent to health education practices.
Credit Points: 12 **Contact Hours:** 3 per week

SSP800 SERVICE POLICIES & PRINCIPLES

Introduction to the principles which underpin service delivery in human services organisations such as accessibility, equity, legitimacy, accountability, responsiveness, participation, efficiency, effectiveness, productivity. Introduction to the notion of framework to several human services organisations. Development of students' capacity to apply the framework to selected organisations.
Credit Points: 12 **Contact Hours:** 3 per week

SSP801 PROGRAM PLANNING & EVALUATION

The purpose of planning; the various contexts in which program planning may apply: similarities and uniqueness; who does the planning? Consistency with organisational philosophy and goals. Collaboration in planning. Program planning steps. The need for accountability; purposes for evaluation. Process evaluation: standards of performance, adequacy, provision of facilities, resources, funds. Impact evaluation: changes in knowledge, attitudes, behaviours. Outcome evaluation: macro changes, eg. health data, Social Security benefits. Designs for evaluation: record keeping to controlled experiment. Analysing and reporting results. How to make use of evaluation.
Prerequisite: SSP800
Credit Points: 12 **Contact Hours:** 3 per week

SSP802 MANAGEMENT IN THE COMMUNITY SECTOR

An overview of community management as an alternative method of delivering human services. An analysis of the community sector: positive and negative aspects. Development of appropriate management skills in community-based service programs.
Credit Points: 12 **Contact Hours:** 3 per week

SSP850 COMMUNICATION THEORY & SKILLS

Analysis and practical experience in the development of communication skills and techniques applicable to individual, small group, community and societal levels in health education.
Credit Points: 12 **Contact Hours:** 3 per week

SSP854 HUMAN SEXUALITY & RELATIONSHIPS

Sexual behaviour and the life cycle; sexual health and reproduction; sex and society.
Credit Points: 12 **Contact Hours:** 3 per week

SVB001 SURVEYING & MAPPING

Instrumentation for land measurement, contour mapping; types of map, availability and interpretation; simple survey techniques; introduction to remote sensing techniques.
Credit Points: 2 **Contact Hours:** 1 per week

SVB101 SURVEYING & MEASURING

Basic concepts, applications of surveying, relationship with architecture and building; instrumentation; setting out of procedures, plotting of survey data, computations, cadastral systems, land tenure systems; Titles Office procedures, searching, identification, types of surveys, easements, encroachments, interpretation of survey plans.
Credit Points: 4 **Contact Hours:** 2 per week

SVB111 DATA PRESENTATION 1

Drafting instruments and techniques; introductory survey drafting; introductory engineering drawing.
Co-requisite: SVB121
Credit Points: 6 **Contact Hours:** 3 per week

SVB121 LAND SURVEYING 1

Principles of surveying; surveying instrumentation; traversing; levelling; elements of tacheometry; contouring; elementary theory of error; plane surveying computations.
Credit Points: 13 **Contact Hours:** 6 per week

SVB199 INDUSTRIAL EXPERIENCE 1

At least six weeks employment, approved by the Head of School. Students must submit an industrial experience record form, completed by both student and employer.
Contact Hours: 6 weeks

SVB203 PROJECT SURVEY

Two surveys of a building site; chain survey with reduced levels taken on a grid; survey done by theodolite traverse.
Prerequisite: SVB101
Credit Points: 4 **Contact Hours:** 2 per week

SVB211 DATA PRESENTATION 2

Engineering survey drafting; working survey drawings; basic principles of computer graphics, hardware, software; programming; plotter production of maps and plans.
Prerequisites: CSB294, SVB111
Co-requisite: SVB226
Credit Points: 6 **Contact Hours:** 3 per week

SVB212 DATA PRESENTATION 2A

Developing drafting skills; introduction to engineering survey drafting and computer graphics.
Prerequisite: SVB111 **Co-requisite:** SVB226
Credit Points: 2 **Contact Hours:** 1 per week

SVB226 LAND SURVEYING 2

Plane surveying computations; detail surveying; reconnaissance surveying; route location; curve theory; setting out surveys; earthworks computation; elements of cadastral surveying.
Prerequisite: SVB121 **Co-requisite:** SVB211
Credit Points: 13 **Contact Hours:** 6 per week

SVB270 LAND ADMINISTRATION 1

Introduction to elements of law; law relating to land title and registration; crown land administration in Queensland.
Credit Points: 6 **Contact Hours:** 3 per week

SVB282 SEMINAR 1

Preparation of technical papers and reports; written and oral presentation; business correspondence; meeting procedures.
Credit Points: 5 **Contact Hours:** 2 per week

SVB299 INDUSTRIAL EXPERIENCE 2

At least six weeks employment, approved by the Head of School. Students must submit an industrial ex-

perience record form, completed by both student and employer.
Contact Hours: 6 weeks

SVB306 SURVEYING
Introductory surveying methods, instrumentation; use of level and theodolite for gathering and setting out data points, distance measurement, circular curves, areas and volumes; introductory photogrammetry and digital terrain models.
Credit Points: 8 **Contact Hours:** 3 per week

SVB311 DATA PRESENTATION 3
Cadastral plan drawing; introduction to cartography; cartographic reproduction; mapping agencies.
Prerequisite: SVB111 **Co-requisite:** SVB393
Credit Points: 5 **Contact Hours:** 3 per week

SVB331 OBSERVATIONS & ADJUSTMENTS 1
Review of relevant statistical concepts; theory of observations and of random errors; linear and nonlinear functional models, the stochastic model, the law of propagation of variances, the error ellipse; practical applications.
Prerequisites: MAB495, MAB499
Co-requisite: MAB795
Credit Points: 4 **Contact Hours:** 2 per week

SVB343 PHOTOGRAMMETRY 1
Introduction to photogrammetry; photogrammetric optics; aerial photography; geometry and use of single photographs; geometry and use of sterogram; half-day visit to an aerial survey/mapping organisation.
Prerequisite: PHB170
Credit Points: 6 **Contact Hours:** 3 per week

SVB352 LAND STUDIES A
Introductory ecology; conservation of resources; introduction to physical aspects of land; assessment of physical land parameters; land classifications; land utilisation; sieve mapping and land use surveys; regional geography; students are required to undertake a full-day ecology field trip.
Credit Points: 3 per semester
Contact Hours: 6 per week

SVB393 LAND SURVEYING 3
Cadastral surveying; field astronomy; off-campus field work.
Prerequisites: SVB121, SVB270
Co-requisites: SVB311, SVB573
Credit Points: 10 **Contact Hours:** 5 per week

SVB399 INDUSTRIAL EXPERIENCE 3
At least six weeks employment, approved by the Head of School. Students must submit an industrial experience record form, completed by both student and employer.
Contact Hours: 6 weeks

SVB412 CARTOGRAPHIC PRACTICE
Reprographic processes; colour systems, colour separation and colour correction; digital mapping techniques; cartographic data structures; geographical surfaces.
Prerequisite: SVB311
Credit Points: 5 **Contact Hours:** 3 per week

SVB430 LAND SURVEYING 4
Primary traversing; classical triangulation; trigonometrical levelling; precise levelling; off-campus field work.
Prerequisite: SVB121
Co-requisites: SVB431, SVB442
Credit Points: 9 **Contact Hours:** 4 per week

SVB431 OBSERVATIONS & ADJUSTMENT 2
Introduction to least squares adjustment; standard problems 1 and 2; extensive practical applications to linear and non-linear problems with both univariate data sets.
Prerequisite: SVB331
Credit Points: 4 **Contact Hours:** 2 per week

SVB442 GEODETIC COMPUTATIONS
Plane coordinate computation; geometrical geodesy, geometry of spheroid, computation on the spheroid; theory of map projections; the transverse mercator and UTM; computations on the Australian Map Grid.
Prerequisites: MAB795, SVB121
Co-requisite: SVB430
Credit Points: 9 **Contact Hours:** 4 per week

SVB443 PHOTOGRAMMETRY 2
Principles of construction; operation of analogue stereoplotters; aerial triangulation; terrestrial photogrammetry; analytical photogrammetry; half-day visit to an aerial survey/mapping organisation.
Prerequisites: SVB343, MAB795
Co-requisite: SVB431
Credit Points: 11 **Contact Hours:** 6 per week

SVB451 LAND STUDIES B
Introduction to theory of price; location theory; land economics.
Credit Points: 5 **Contact Hours:** 3 per week

SVB470 LAND ADMINISTRATION 2
Introduction to government and public administration; Australian public land administration; private sector land administration.
Credit Points: 4 **Contact Hours:** 2 per week

SVB473 LAND INFORMATION SYSTEMS 1
Need for a computerised land information system review of cadastral systems; land title systems: the multipurpose cadastre and automation; survey requirements for land information systems; design principles, retrieval techniques.
Prerequisites: CSB294, SVB211, SVB393
Co-requisite: SVB573
Credit Points: 5 **Contact Hours:** 3 per week

SVB535 LAND SURVEYING 5
Hydrographic surveying; topographic surveying.
Prerequisites: MAB495, SVB121
Co-requisite: SVB430
Credit Points: 5 **Contact Hours:** 3 per week

SVB551 LAND VALUATION
Concepts and purposes of valuation; improvements; urban and rural valuation; interest in land; compensation; legislation affecting land valuation; land valuation practice.
Prerequisite: SVB451
Credit Points: 6 **Contact Hours:** 3 per week

SVB561 LAND DEVELOPMENT PRACTICE 1
Land development as an economic activity; surveys for subdivision design; site planning; land use determinants; political, economic, social and physical; traffic aspects affecting subdivision design; case studies.
Prerequisites: SVB352, SVB451
Co-requisites: CEB364, SVB551, SVB574
Credit Points: 10 **Contact Hours:** 6 per week

SVB563 LAND INFORMATION SYSTEMS 2

Data acquisition, storage and management; spatial identifiers; cartographic display and generalisation in automated systems; implementation of a system.
Prerequisite: SVB473 **Co-requisite:** SVB412
Credit Points: 4 **Contact Hours:** 2 per week

SVB571 CADASTRE

Complex and modern problems involved in the cadastre.
Prerequisite: SVB393
Credit Points: 4 **Contact Hours:** 2 per week

SVB573 LAND ADMINISTRATION 3

Queensland case law; legislation affecting land and the survey of land including the registration of interests in land, and statutory control of land development.
Prerequisite: SVB270
Credit Points: 6 **Contact Hours:** 3 per week

SVB574 LAND ADMINISTRATION 4

Introduction to rural and urban sociology; social aspects of land administration.
Credit Points: 4 **Contact Hours:** 2 per week

SVB634 TOPICS IN ENGINEERING SURVEYING

Network reliability; deformation surveys; subsidence monitoring; precision alignment and distance measurement; jig surveys; high rise buildings.
Prerequisite: SVB431 **Co-requisite:** SVB639
Credit Points: 5 **Contact Hours:** 3 per week

SVB636 LAND SURVEYING 6

Geophysical surveying; mine surveying; field astronomical observation.
Prerequisites: PHB170, SVB430
Credit Points: 6 **Contact Hours:** 3 per week

SVB639 OBSERVATIONS & ADJUSTMENT 3

Design, pre-analysis and optimisation followed by execution, adjustment and assessment of horizontal (2 dimensional) control networks, traverse and level networks (1 dimensional).
Prerequisite: SVB431
Credit Points: 4 **Contact Hours:** 2 per week

SVB640 GEODESY

Introduction to history; definitions; gravity field of earth; level surfaces; spherical harmonics; variations of the gravity field; gravity measurements; geodetic reference systems; datum transformations; satellite geodesy; satellite doppler surveying; global positioning system; inertial surveying systems; geodynamics.
Prerequisites: MEB221, PHB170, SVB430, SVB442
Co-requisite: SVB639
Credit Points: 6 **Contact Hours:** 3 per week

SVB643 PHOTOGRAMMETRY 3

Numerical relative and absolute orientation; independent model and bundle methods of block adjustment for triangulation; close range photogrammetry including nonconventional techniques; analytical plotters including generation, manipulation and storage of digital data; use of micro and mini computers in analytical photogrammetry.
Prerequisite: SVB443 **Co-requisite:** SVB431
Credit Points: 5 **Contact Hours:** 3 per week

SVB645 REMOTE SENSING

Definitions and major systems for remote sensing; characteristic spectral reflectance of objects and spectral response of sensors; remote sensing acquisition hardware; remote sensing satellites; thermography and radar; data processing for presentation and enhancement; cartographic correction of remote sensing data for systematic geometric error.
Prerequisite: SVB343
Credit Points: 5 **Contact Hours:** 3 per week

SVB664 LAND DEVELOPMENT PRACTICE 2

Preliminaries of development, data assembly, statutory approvals, elements of design, requirements of communication, hydraulic and energy services, development costs, controls of land development schemes; neighbourhood, residential, industrial estate, canal and reclamation estates, commercial and rural development schemes; design of small towns.
Prerequisites: SVB561, SVB574
Credit Points: 10 **Contact Hours:** 6 per week

SVB670 LAND ADMINISTRATION 5

Organisation theory; development planning procedures; land development analysis.
Prerequisites: SVB470, SVB451
Credit Points: 5 **Contact Hours:** 3 per week

SVB680 PROFESSIONAL PRACTICE

History of surveying and surveyors; the surveyor in relation to statutory authorities, civil, commercial and taxation laws; the surveyor as employer, employee, expert witness; surveyor-client-consultant relationships; professional ethics.
Prerequisite: SVB470
Credit Points: 6 **Contact Hours:** 3 per week

SVB682 SEMINAR 2

Preparation and presentation of at least one technically oriented seminar paper in a field germane to surveying.
Prerequisites: SVB282, successful completion of subjects totalling not less than 85 hours of weekly contact time.
Credit Points: 2 **Contact Hours:** 1 per week

SVB683 PROJECT

Undertake and report on an approved project in the field of surveying. Field trips on site or to local firms may be required.
Prerequisites: Successful completion of subjects totalling not less than 85 hours of weekly contact time.
Credit Points: 4 **Contact Hours:** 1 per week

SVB684 MAP PRODUCTION PLANNING

Planning of photogrammetric projects, specifications, control, costs accuracy; elements of critical path method.
Prerequisites: SVB412, SVB443
Co-requisite: SVB643
Credit Points: 5 **Contact Hours:** 3 per week

SVB685 PROJECT

Undertaking of a substantial mapping project utilising knowledge gained in photogrammetric, traditional and computer-assisted methods. The project may be topographic or thematic.
Prerequisites: SVB311, SVB412
Co-requisite: SVB443
Credit Points: 8 **Contact Hours:** 4 per week

SVB688 PROFESSIONAL PRACTICE A

Preparing surveyors for professional practice either as employer or employee.
Prerequisites: Successful completion of subjects totalling not less than 100 hours of weekly contact including SVB573.
Credit Points: 4 **Contact Hours:** 2 per week

SVB694 GEODESY 2

Review of matrices, the Jacobian matrix, orthogonal matrices; transformations, coordinate transformations; rotations in 3 dimensions, euler angles, datum transformations, the development of datums.
Prerequisite: SVB640
Credit Points: 5 **Contact Hours:** 3 per week

SVB911 GRAPHIC DESIGN 1

Perception, development of awareness, a broad-based approach to design, including graphics, film, fabrics, industrial design. Sketching in pencil from nature, cast and other areas. Development of tones and textures using various media.
Credit Points: 10 **Contact Hours:** 5 per week

SVB912 GRAPHIC DESIGN 2

Identification and statement of design problems and solutions; conceptualising in design; the study of colour; the abstract tools of design; composition, perspective, projections and layout.
Contact Points: 9 **Contact Hours:** 4 per week

SVP111 CADASTRAL SURVEYING 1

The practice of cadastral surveying including subdivision design. Students may be required to spend four weeks at a field study centre and to carry out off-campus field work.
Credit Points: 26 **Contact Hours:** 356 total

SVP112 SURVEY COMPUTING

Computer applications in the practice of surveying.
Credit Points: 3 **Contact Hours:** 47 total

SVP113 OFFICE OPERATIONS

Written and oral communication; interviewing; office management, industrial relations.
Credit Points: 7 **Contact Hours:** 90 total

SVP114 PRACTICE LAW

The significance of court decisions on professional indemnity claims; statutes and regulations affecting surveyors. Preparation of brief and appearance in practice court sessions in conjunction with the Legal Practice Course.
Credit Points: 2 **Contact Hours:** 30 total

SVP115 PROFESSIONAL PRACTICE

Professional organisations in surveying; the conventions of surveying practice; professional relationships and the responsibilities of professional practice.
Credit Points: 1 **Contact Hours:** 8 total

SVP116 SURVEY PROJECT MANAGEMENT

The recording and planning of survey projects and assessing progress.
Credit Points: 7 **Contact Hours:** 100 total

SVP211 CADASTRAL SURVEYING 2

The practice of cadastral surveying, including mining and real property surveys. Students may be required to spend four weeks at a field study centre and be required to carry out off-campus field work.
Credit Points: 18 **Contact Hours:** 247 total

SVP212 BUILDING CONTROL SURVEYS

Horizontal and vertical building control surveys; interpretation of plans and client relationships. Students may be required to spend some time on off-campus field work and inspections.
Credit Points: 3 **Contact Hours:** 38 total

SVP213 DETAIL SURVEYS

Surveys for location and presentation of natural and man-made detail. Students may be required to spend some time at a field study centre and be required to carry out off-campus field work.
Credit Points: 2 **Contact Hours:** 30 total

SVP214 MAPPING

Mapping techniques and their relative cost.
Credit Points: 6 **Contact Hours:** 76 total

SVP215 INNOVATIONS & SYSTEMS DEVELOPMENT

Assessment of new techniques and equipment, and the development of an innovative approach to the practice of surveying.
Credit Points: 2 **Contact Hours:** 22 total

SVP216 SURVEYS FOR GOVERNMENT

Decision making in government organisations; survey services provided by or to local authorities and government departments; surveying contracts. Students may be required to carry out inspections of several government agencies.
Credit Points: 3 **Contact Hours:** 38 total

SVP217 ENGINEERING SURVEYING

Engineering surveys for a variety of development projects. Students may be required to spend two weeks at a field study centre and be required to carry out off-campus field work.
Credit Points: 16 **Contact Hours:** 210 total

SVT115 CARTOGRAPHIC COMPUTATIONS 1

Calculation and calculating; plane geometry; review of algebraic manipulation with cartographic applications; matrices and transformations as used in mapping.
Credit Points: 8 **Contact Hours:** 3 per week

SVT225 SURVEYING

Basic principles of surveying techniques for survey control, especially for mapping purposes; basic principles of measurement: angular and linear; historical review of surveying.
Credit Points: 8 **Contact Hours:** 3 per week

SVT243 PHOTOGRAMMETRY 1

Photographic process, aerial survey and flight planning; geometry of the single photograph, scale, etc.; stereoscopy, stereoscopes and parallax bar; simple treatment of space resection; rectification and interpretation; one evening visit to an aerial surveying organisation.
Credit Points: 8 **Contact Hours:** 3 per week

SVT306 ENGINEERING SURVEYING

Fundamental survey concepts, coordinate systems, differential and simple trigonometric levelling; angular measurements; bearing and azimuth; linear measurement by steel tape and stadia.
Credit Points: 7 **Contact Hours:** 3 per week

SVT471 LAND LAWS & REGULATIONS

Introduction to the Australian legal system, sources of law; acts affecting land and land surveying in Queensland.
Credit Points: 8 **Contact Hours:** 3 per week

SVT511 CAD SYSTEMS

Principles of digital mapping; use of an interactive graphics system for mapping operations.
Prerequisite: SVT991
Credit Points: 8 **Contact Hours:** 3 per week

SVT513 DIGITAL MAPPING

Advanced 3 dimensional mapping; analytical plotting systems including digital and graphical mapping,

digital elevation models and unconventional mapping.
Prerequisites: SVT443, SVT315
Credit Points: 8 **Contact Hours:** 3 per week

SVT623 PROJECT MAPPING
The role of government and the private sector in project mapping; planning mapping projects.
Prerequisites: SVT343, SVT443
Credit Points: 4 **Contact Hours:** 1.5 per week

SVT642 MAP PROJECTIONS 1
Special trigonometry and its application to map projections; projections using a sphere as reference surface.
Prerequisite: SVT115
Credit Points: 8 **Contact Hours:** 3 per week

SVT715 CARTOGRAPHY 1
Monochrome design; map compilation; the process camera for cartographic use; lithography.
Credit Points: 8 **Contact Hours:** 3 per week

SVT742 MAP PROJECTIONS 2
Geodesy: geometry of ellipse and ellipsoid; gravity; geodesy in mapping; the traverse mercator projection, UTM and the Australian Map Grid; computations: geographic to grid and vice versa.
Prerequisite: SVT642
Credit Points: 8 **Contact Hours:** 3 per week

SVT815 CARTOGRAPHY 2
Map production; registration systems; scribing and masking techniques; printing methods including letter press, gravure, offset lithography and silk screen, paper and ink manufacture; colour theory; Munsell's system, colour synthesis, colour correction.
Prerequisite: SVT715
Credit Points: 8 **Contact Hours:** 3 per week

SVT826 CARTOGRAPHIC ADMINISTRATION
Government and public administration; theory of organisations and its application to mapping agencies.
Credit Points: 8 **Contact Hours:** 3 per week

SVT915 CARTOGRAPHY 3
Economics of standard mapping, sheet sizes, map specifications, map accuracy; use of orthophotos; thematic mapping; special cartographic techniques.
Prerequisite: SVT815
Credit Points: 8 **Contact Hours:** 3 per week

SVT916 CARTOGRAPHY 4
Digital methods in cartography; compiliation of data for computer-assisted cartography; coordinate systems and digitising; methods of display.
Prerequisites: SVT991, SVT315
Credit Points: 8 **Contact Hours:** 3 per week

SVT945 REMOTE SENSING
Remote sensing; data and information; electromagnetic propagation; spectral sensitivity and response; remote sensing imagery.
Prerequisite: SVT343
Credit Points: 8 **Contact Hours:** 3 per week

SVT992 COMPUTER GRAPHICS 2
Data for computer-assisted mapping; programming techniques for automated drafting; HP graphics language for driving plotters.
Prerequisites: SVT991, SVT315
Credit Points: 8 **Contact Hours:** 3 per week

Special Faculty of Business Electives

ALB102 CONSUMER STUDIES
The nature of the consumer society in the Australian economy; the interdependent roles of the consumer, business and government; consumer behaviour; products and services; marketing and advertising; consumer protection.
Credit Points: 12 **Contact Hours:** 3 per week

ALB106 LAW AND COMMUNICATION
The institutions of the law; ordering the law: public and private; the fashioning of law: cases, precedent, legislation, delegated legislation interpretation, facts, legal reasoning, the law library; limits on freedom of expression: torts, crimes, defamation, obscenity; laws affecting advertising: broadcasting, television and press; contempt of court.
Credit Points: 12 **Contact Hours:** 3 per week

ALB108 PUBLIC ADMINISTRATIVE LAW
Nature and development of law; precedent; 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 reform.
Prerequisite: EPB104
Credit Points: 12 **Contact Hours:** 3 per week

ALB130 INDIRECT TAXATION
Sales tax; customs and excise duties; stamp duty; payroll tax; land tax.
Prerequisite: ALB133
Credit Points: 12 **Contact Hours:** 3 per week

AYB214 COMPANY ACCOUNTING FOR EDUCATORS
Accounting procedures and records required on formation of a company; procedures for alteration of capital structure and for liquidations, amalgamations and consolidations of companies; professional and legal requirements of accounting reporting.
Prerequisite: Tertiary studies in accounting or relevant teaching experience.
Credit Points: 12 **Contact Hours:** 3 per week

AYB215 COMPUTERS IN ACCOUNTING 1
Business information systems concepts; accounting applications; controls and accounting; systems software-DOS; application software-accounting package; application software-spreadsheet package; application to business education.
Credit Points: 12 **Contact Hours:** 4 per week

AYB216 COMPUTERS IN ACCOUNTING 2
System design, implementation and installation; database query languages; business graphics; expert systems; communications; computer networks; application to business education.
Prerequisites: AYB215, AYB110
Credit Points: 12 **Contact Hours:** 4 per week

BSB100 MANAGEMENT & INDUSTRIAL RELATIONS
The development of modern management; contemporary managerial processes in the organisation and

in society; relations between managers and the state; unions and workers.
Credit Points: 12 **Contact Hours:** 4 per week

COB104 DRAMATURGY FOR PROFESSIONALS

The relational level of communication; structure and style of message with special emphasis on non-verbal language; dramaturgical and experiential models. The theoretical perspectives of semiotic message analysis and action research underpin the practical exercises used.
Credit Points: 12 **Contact Hours:** 3 per week

COB107 INTERCULTURAL COMMUNICATION

The social and cultural factors which affect international business communication. The influence of values, beliefs and customs on the communication process. It is anticipated that in 1992 a joint project will be conducted over the course of the semester with students in English language classes at Universities in Japan and South Korea.
Credit Points: 12 **Contact Hours:** 3 per week

COB109 ISSUES IN PUBLISHING

Te processes involved in book and magazine publishing. Topics include: changing media habits and literacy skills of consumers: the impact of technology and economics; the processes of publishing; strategic positioning, editorial concepts and steps in production.
Credit Points: 12 **Contact Hours:** 3 per week

COB117 BUSINESS ORGANISATION

The interrelationship of key characteristics of the business organisation: people, strategies, structures, technology and the business environment.
Prerequisite: Business Management
Credit Points: 12 **Contact Hours:** 3 per week

COB124 OFFICE TRANSCRIPTION A

Progressive development of audio transcription skills to an advanced level using a wide range of business correspondence including technical, legal and medical.
Credit Points: 12 **Contact Hours:** 4 per week

COB125 OFFICE TRANSCRIPTION B

Synopsis as for COB124.
Credit Points: 12 **Contact Hours:** 3 per week

COB127 OFFICE MANAGEMENT

The role of administrative management; policy making procedures involving administrative operations, communication and information management.
Credit Points: 12 **Contact Hours:** 3 per week

COB146 ADVANCED PROFESSIONAL WRITING

The current principles and practices in writing professional documents; the content, style and presentation of professional documents; audience considerations and influences of new technology on corporate writing culture.
Prerequisite: COB160
Credit Points: 12 **Contact Hours:** 3 per week

COB147 CREATIVE WRITING

Creative writing involving the communication of ideas and values within a social framework. Students examine the creative writing process with particular emphasis on the short story. The problems of publishing and marketing as a professional writer are considered.
Prerequisite: COB144
Credit Points: 12 **Contact Hours:** 3 per week

COB151 BUSINESS ORGANISATION

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.
Prerequisite: Introduction to Management
Credit Points: 12 **Contact Hours:** 3 per week

COB152 ANALYSIS AND METHODOLOGY IN MANAGEMENT

The first part of the subject is designed to establish a conceptual base suitable for the analysis of both abstract and empirical argument. The second part of the course builds upon the concept of a valid argument by introducing the notion of the empirical research process, both historical and scientific. A final project requiring the construction of an argument and integration of data is introduced to help integrate the analytical and empirical material, and demonstrate the student's ability to communicate meaning in an appropriate fashion. This may draw on introductory statistics and computing subjects.
Credit Points: 12 **Contact Hours:** 3 per week

COB153 ORGANISATIONAL ANALYSIS & MANAGEMENT

How modern organisations operate and their import for the study and practice of management. It focuses on two key areas: analysis and understanding of organisational theory and social processes in organisations. Specific skills valuable to managers are identified and discussed. The major processes are examined, with a focus on decision making and communication processes.
Prerequisite: COB152
Credit Points: 12 **Contact Hours:** 3 per week

COB154 ORGANISATIONAL SOCIOLOGY

Organisations in the public sector. The subject builds upon the Introduction to Sociology and Theory and Administration subjects to provide a detailed understanding of organisation theory.
Prerequisite/Co-requisite: Eight subjects in the Bachelor of Business degree including either Administrative Theory or Psychology.
Credit Points: 12 **Contact Hours:** 3 per week

COB156 ADVANCED SECRETARIAL STUDIES

The role of the administrative secretary; secretarial procedures; office systems; office supervision; technology and the administrative secretary. Incompatible with degree or higher qualifications in secretarial studies.
Prerequisite: Diploma of Teaching with a major in commercial studies or equivalent.
Credit Points: 12 **Contact Hours:** 3 per week

COB162 COMMUNITY BASED ORGANISATION: STRUCTURE & PROCESS

Community improvement, service, cultural and economic development organisations and associations in Australian society; their background, purposes, means of operation and relationship with their environment and wider society. Particular concern is paid to the skills necessary to develop and maintain success organisations.
Prerequisite: COB129
Credit Points: 12 **Contact Hours:** 3 per week

EPB126 GOVERNMENT ECONOMIC POLICY

Problems in the economics of government social policy; social policy and its impact on the allocation of resources and distribution of income and wealth; the theory of taxation; fiscal federalism; the significance of the size and growth of the public sector. The application of economic analysis in a number of areas of social policy, including health and medical care, social security, education, environmental protection and housing.
Prerequisite: EPB150 or EPB151
Credit Points: 12 **Contact Hours:** 3 per week

EPB129 INTERNATIONAL BUSINESS STRATEGIES

The environment of international business; interaction with international home societies; business customs, protocol and values; methods of operation in Asian Pacific countries; trade policy issues; international agreements and conventions; organisation; negotiation; the future.
Credit Points: 12 **Contact Hours:** 3 per week

EPB134 LABOUR ECONOMICS

This subject applies analytical tools acquired from the preceding subjects investigating 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 Phillips Curve in Australia.
Prerequisites: EPB154, EPB142
Credit Points: 12 **Contact Hours:** 3 per week

EPB170 PACIFIC RIM ECONOMIC RELATIONS

Pacific rim nations such as Australia, South-east Asia, China, Japan, Canada, the United State of America, Central and South America and New Zealand; the evolution of economic relations; trade, investment and migration; the impact of political, social and cultural variables the development of a strategic management perspective.
Prerequisite: EPB142
Credit Points: 12 **Contact Hours:** 3 per week

FNB103 COMPARATIVE FINANCIAL SYSTEMS

Introduction to the operations of important overseas capital markets.
Prerequisite: FNB100, Financial Management 1
Credit Points: 12 **Contact Hours:** 3 per week

FNB107 CORPORATE FINANCE

The nature of corporate finance; financial mathematics; project evaluation; short-term asset management; the capital market; short and long term finance; dividend policy; computer applications. Incompatible with Accounting 2.
Prerequisite: AYB217
Credit Points: 12 **Contact Hours:** 4 per week

FNB118 GOVERNMENT FINANCE

Introduction to government finance, sources of public income, public expenditure, investment and debt; taxation objectives, principles and practices; instrumentalities of economic accountability, intergovernmental financial relations, government finance and economic policy, new financial legislation and institutions.
Prerequisite: AYB103, Managerial Economics
Credit Points: 12 **Contact Hours:** 3 per week

FNB119 INSURANCE RISK MANAGEMENT

Risk classification; measurement and analyses of risk; types of insurance policies available; the evaluation of an insurance program.
Prerequisites: Accounting 1, Financial Management 1
Credit Points: 12 **Contact Hours:** 3 per week

HRB117 INTERNATIONAL HUMAN RESOURCE MANAGEMENT

Organisational structure and cultural differences; communicating across cultural boundaries; multicultural teams; crosscultural leadership, motivation and negotiation; comparative human resource management; comparative employee relations.
Prerequisites: COB112, HRB131
Credit Points: 12 **Contact Hours:** 3 per week

HRB403 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.
Credit Points: 12

MJB111 CREATIVE PRESENTATIONS

This subject is based on the semiotic perspective and uses practical drama as the tool for learning. Communication theory: verbal structure, paralanguage, proxemics, kinesics, etc. The concepts learned are applied to the development of expressive presentation skills in the business environment.
Credit Points: 12 **Contact Hours:** 3 per week

MJB112 MEDIA PRAXIS 3

Experimentation with a greater variety of production codes in three areas: still photography, video production and film production.
Prerequisite: MJB145
Credit Points: 12 **Contact Hours:** 3 per week

MJB119 AUSTRALIAN LITERATURE AND FILM IN SOCIETY

Selective thematic and textual analysis of Australian literature and film as expressions of Australian culture; the broader questions of representation and national cinema; the focus is principally upon film.
Prerequisite: Australian Studies
Credit Points: 12 **Contact Hours:** 3 per week

MJB133 COMPARATIVE JOURNALISM

Development of national press systems; the journalist as a mass communicator; functions of the press in different societies; foreign press systems; international and crosscultural communication.
Credit Points: 12 **Contact Hours:** 3 per week

MJB145 MEDIA PRAXIS 2

Continuation of Media Praxis 1; the production of meaning in media texts through practical work. Students deal exclusively with audiovisual media and continue to use video equipment but are involved in more complex production tasks.
Prerequisite: Media Praxis 1
Credit Points: 12 **Contact Hours:** 3 per week

MJX100 TELEVISION PRODUCTION

Basic application of production techniques to performance statistics.
Credit Points: 12 **Contact Hours:** 3 per week

MKB103 MARKETING EXPERIMENTATION

Experimental design for the development of marketing theory and for rigorous control of the environment in finding casual relationships; field and laboratory experiments external and internal validity; extraneous variables; control groups; combining experimental treatments in factorial designs and interactive effects.
Prerequisite: EPB109
Credit Points: 12 **Contact Hours:** 3 per week

MKB104 ADVANCED MARKETING RESEARCH TECHNIQUES

The subject aims to give students a good working familiarity with the most used techniques in marketing research. A detailed analysis of concepts gained in marketing research.
Prerequisite: EPB109 **Co-requisite:** MKB151
Credit Points: 12 **Contact Hours:** 3 per week

MKB105 PROFESSIONAL PUBLIC RELATIONS PRACTICE

Final year undergraduates work in public relations oriented organisations, under supervision for 4 weeks. Undergraduates arrange for their own placements, which must be approved by the lecturer responsible for the subject. Acceptance into this subject is not a right and is subject to the approval of the Head of School, and/or Major Coordinator.
Prerequisites: MKB123, MKB120. Undergraduates must have successfully completed 5 semesters of the full-time course or equivalent.
Credit Points: 12 **Contact Hours:** 3 per week

MKB106 PROFESSIONAL ADVERTISING PRACTICE

Final year undergraduates work in advertising oriented organisations under supervision for 4 weeks. Undergraduates arrange for their own placements, which must be approved by the lecturer responsible for the subject. Acceptance into this subject is not a right and is subject to the approval of the Head of School, and/or Major Coordinator.
Prerequisite: MKB126 and students must have completed 5 semesters full-time or equivalent.
Credit Points: 12 **Contact Hours:** 3 per week

MKB107 MARKETING DECISION SUPPORT SYSTEMS

Advanced treatment of the theory and application of marketing decisions; the evaluation of marketing policy and strategy; consumer and organisational buying behaviour; market segmentation, demand assessment; product, price, promotion and distribution..
Prerequisite: MKB141 and EPB109
Credit Points: 12 **Contact Hours:** 3 per week

MKB109 SPECIAL TOPIC IN MARKETING

Current and/or controversial issues in marketing. Use of relevant experts is an important ingredient of the subject.
Prerequisite: MKB140 or MKN106
Credit Points: 12 **Contact Hours:** 3 per week

MKB110 MARKET ANALYSIS REALITIES

Market segmentation techniques; estimating market potential; new product research including concept testing, prediction of trial purchase and test marketing; customer satisfaction theory, measurement and profit implications; a substantial practical component including a large research project is involved.
Co-requisite: MKB151
Credit Points: 12 **Contact Hours:** 3 per week

MKB111 MARKETING MEASUREMENT CONCEPTS

Questionnaire design for marketing research; question relevance, accuracy, sequence and layout; measurement and scaling concepts; measurement of advertising effectiveness. A hands-on approach to questionnaire design and measurement.
Prerequisite: EPB109
Credit Points: 12 **Contact Hours:** 3 per week

MKB119 ADVERTISING COPYWRITING – ELECTRONIC

Development of copy platforms and positioning; introduction to electronic media copy and storyboarding; development of electronic copywriting; graphic production; production of radio and TV commercials; campaign development and presentation of campaigns.
Prerequisites: MKB118 and MJB126 (may be a co-requisite)
Credit Points: 12 **Contact Hours:** 3 per week

MKB121 RETAIL ADVERTISING

The essential tasks of retail advertising; motivational techniques; retail and national advertising; imagery and typography; advertising departments versus agencies; handbills, inserts, direct mail and catalogues; audience differentiation; measuring results; planning, copywriting and presentation of retail companies.
Prerequisite: MKB118 or MKB145
Credit Points: 12 **Contact Hours:** 3 per week

MKB134 BUSINESS FORECASTING

The theory and application of quantitative forecasting models including smoothing techniques, CDA and auto-projective; casual models in sales and advertising; qualitative models including Delphi.
Prerequisite: EPB109
Credit Points: 12 **Contact Hours:** 3 per week

MKB138 MARKET SIMULATION

This subjects develops an understanding of the effectiveness of marketing strategies in differing market structures. Topics include: Australian market structures; pricing variations; risk and uncertainty; product pricing; transfer prieing; capital budgeting.
Prerequisites: EPB116 and EPB109
Credit Points: 12 **Contact Hours:** 3 per week

MKB157 PRINCIPLES OF DIRECT MARKETING

The underlying principles, standards and practice of direct marketing; customer requirements; acquisition and servicing; strategic and tactical planning; database marketing; list procurement and use; cost and profit considerations; product delivery.
Prerequisite: MKB142
Credit Points: 12 **Contact Hours:** 3 per week

MKP106 ADVERTISING SEMINAR

Advertising and promotion management; the purpose, planning, profit contribution and selective communication strategies as they apply to audience and market segmentation; the consistent relationship of the promotional component to the advertising component and their integration. Research methods and media planning is considered against the basic thrust of this binary communication model.
Credit Points: 12 **Contact Hours:** 3 per week