Diploma in Engineering

Handbook

Year	2017
QUT code	EN02
CRICOS	086329G
Duration (full-time international)	1 year
OP	14
Rank	70
International fee (indicative)	2017: $13262 per study period (48 credit points)
Total credit points	96
Credit points full-time sem.	48
Course Coordinator	Dr Annetta Spathis (annetta.spathis@qut.edu.au)
Discipline Coordinator	

International Subject prerequisites

- Maths B
- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	5.0
Writing	5.0
Reading	5.0
Listening	5.0
Overall	5.5

Overview

The Diploma in Engineering, which has intakes for international students in February, June and October, is equivalent to the first year of the Bachelor of Enginering. In this program, students study six first year faculty core units as well as two units of Communication which have been designed to support their other core units. Students who successfully complete these units earn full academic credit for eight units towards their degree. Graduates articulate to the second year of the Bachelor of Engineering. Small lectures and tutorials, additional workshops and the support of Language and Welfare Advisers provide an excellent learning environment.

Entry Requirements - Academic

Successful completion of senior high school with the required grades. Students can find more detailed country specific entry requirements at the following web site:
http://www.qut.edu.au/international/applying

English Language Requirements

Queensland Senior English (Low Achievement) or IELTS 5.5 with no sub-score less than 5.0 or TOEFL iBT Overall score of 69 (at least 18 in writing and reading and 17 or more in listening and speaking) or TOEFL 525 (paper) or TOEFL 193 (CBT) or equivalent, or successful completion of the EAP program. (N.B. Students should also check visa requirements).

Progression

Requirements for progression to the second year of the QUT Bachelor of Engineering program:

i) fulfil the Diploma course requirements,
ii) achieve a minimum GPA of 4.0

Course Completion

Students must obtain at least a grade of 4 (Pass) or better in all units.

Abbreviation

DipEng

Sample Structure

Code	Title
Semester 1	
EGD113	Energy in Engineering Systems
EGD121	Engineering Mechanics
EGD125	Introductory Engineering Mathematics
QCD110	Professional Communication 1
Semester 2	
EGD120	Foundations of Electrical Engineering
EGD126	Engineering Computation
EGD270	Civil Engineering Materials
QCD210	Professional Communication 2

Semesters

- Semster One
- Semester Two
- Semester Three

Code	Title
Semster One	
EGD113	Energy in Engineering Systems
EGD125	Introductory Engineering Mathematics
QCD110	Professional Communication 1
Semester Two	

Diploma in Engineering

EGD120	Foundations of Electrical Engineering
EGD121	Engineering Mechanics
QCD210	Professional Communication 2
Semester Three	
EGD126	Engineering Computation
EGD270	Civil Engineering Materials

Diploma in Information Technology

Handbook

Year	2017
QUT code	IT10
CRICOS	081616G
Duration (full-time international)	1 year
OP	14
Rank	70
International fee (indicative)	2017: $9587 per study period (48 credit points)
Total credit points	96
Credit points full-time sem.	48
Course Coordinator	Dr Annetta Spathis (annetta.spathis@qut.edu.au)
Discipline Coordinator	

International Subject prerequisites

- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	5.0
Writing	5.0
Reading	5.0
Listening	5.0
Overall	5.5

QUT International College

International students may upgrade to the QUT Bachelor of Information Technology through QUT International College at our Kelvin Grove campus.

The University Diploma in Information Technology is equivalent to two semesters of the Bachelor of Information Technology degree with a total of 96 credit points (48 standard credit points for a full-time semester).

In the University Diploma program, students study six degree core units as well as two English language units that have been designed to support the other core units.

Progression to the Bachelor of Information Technology

Students who successfully complete these eight units with a grade point average of 4 (on a 7-point scale) and obtain a grade of at least 4 in Professional Communication 2 are given two semesters full-time advanced standing towards their degree and are guaranteed a place in the Bachelor of Information Technology.

Students who complete the University Diploma in Information Technology are also eligible for 96 credit points towards the Bachelor of Corporate Systems Management and Bachelor of Games and Interactive Entertainment.

Sample Structure

Code	Title
Semester One	
ITD101	Impact of IT
ITD104	Building IT Systems
ITD122	Modelling Information Systems
QCD110	Professional Communication 1
Semester Two	
ITD102	Computer Technology Fundamentals
ITD103	Designing for IT
ITD121	Programming Principles
QCD210	Professional Communication 2

Semesters

- Semester One
- Semester Two
- Semester Three

Code	Title
Semester One	
ITD101	Impact of IT
ITD104	Building IT Systems
QCD110	Professional Communication 1
Semester Two	
ITD102	Computer Technology Fundamentals
ITD121	Programming Principles
QCD210	Professional Communication 2
Semester Three	
ITD103	Designing for IT
ITD122	Modelling Information Systems

Bachelor of Engineering (Honours)

Handbook

Year	2017
QUT code	EN01
CRICOS	084921G
Duration (full-time)	4 years
OP	9
Rank	81
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $32300 per year full-time (96 credit points)
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Professional Recognition

Full professional accreditation from Engineers Australia has been given for all primary majors in this course.

Complementary Studies

You have the opportunity to undertake a second major or two minors. A second major is a set of eight units (96 credit points) in the same discipline. A minor is a set of four units (48 credit points) in the same discipline. You will select your primary major, second major and/or minors after the completion of your first year.

Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Honours) must obtain at least 60 days of industrial experience/practice in an engineering environment as approved by the course coordinator.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Course Design

Your QUT Bachelor of Engineering (Honours) degree consists of 384 credit points (32 units) arranged as follows:

(a) First Year: Four (4) core units 48cp + two (2) Discipline Foundation units 24cp + two (2) option units 24cp (96 credit points)

(b) Major: One (1) block of eight (8) major units 96cp plus eight (8) Honours level units 96cp (192 credit points)

Honours units to consist of:
• Research methods 12cp
• Project 24cp
• 5 x Advanced major units 60cp

Available Majors are:

• Civil
• Computer and Software Systems
• Electrical
• Electrical and Aerospace
• Mechatronics
• Mechanical
• Medical, or
• Process

(c) Complementary Studies: 1 x Second Major (8 unit set) or 2 x Minor (4 unit set each)from the options specified for your chosen major. (96 credit points)

Pathways to Further Study

The (EN01) Bachelor of Engineering (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates may be eligible for discipline relevant Masters and/or Doctoral level programs.

Sample Structure

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
EGB111	Foundation of Engineering Design
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics

OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
MZB126	Engineering Computation
Plus 36cp from ONE of the Engineering Foundation Strands	

If you're intended to select Medical Engineering Major, please refer your first year study plan at Medical major 1st Year - July Entry

Code	Title
Year 1 - Semester 2	
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
EGB100	Engineering Sustainability and Professional Practice
PVB101	Physics of the Very Large
PVB101 is the substitute unit of EGB113 in semester 2	
Plus select 12cp (1 unit) from ONE of the Engineering Foundation Strands	
Year 2 - Semester 1	
MZB126	Engineering Computation
EGB111	Foundation of Engineering Design
Plus select 24cp (2 units) from ONE of the Engineering Foundation Strands	

Bachelor of Engineering (Honours) (Civil)

Handbook

Year	2017
QUT code	EN01
CRICOS	084921G
Duration (full-time)	4 years
OP	9
Rank	81
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $32300 per year full-time (96 credit points)
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Dr Brian Lee

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

Complementary Studies

You will have the opportunity to undertaken either a 2nd major or two minors.

Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Honours)(Civil) must obtain at least 60 days of industrial experience/practice in an engineering environment as approved by the course coordinator.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Domestic Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major(192 credit points): one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp
- Complementary studies(96 credit points): one x second major or two x minor .

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

International Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major(192 credit points): one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp
- Complementary studies(96 credit points): one x second major or two x minor .

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

Sample Structure

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
EGB111	Foundation of Engineering Design
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering

Bachelor of Engineering (Honours) (Civil)

	Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
MZB126	Engineering Computation
Plus 36cp from ONE of the Engineering Foundation Strands	

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 2, Semester 1	
EGB270	Civil Engineering Materials
EGB272	Traffic and Transport Engineering
EGB275	Structural Mechanics
EGB371	Engineering Hydraulics
Year 2, Semester 2	
EGB273	Principles of Construction
EGB373	Geotechnical Engineering
EGB376	Steel Design
EGH471	Advanced Water Engineering
Year 3, Semester 1	
EGB375	Design of Concrete Structures
EGH473	Advanced Geotechnical Engineering
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 2	
EGH472	Advanced Highway and Pavement Engineering
EGH475	Advanced Concrete Structures
2nd Major/Minor unit	
EGH404	Research in Engineering Practice
- Substitute unit EGH403 if needed for Semester 1, 2016	
Year 4, Semester 1	
EGH400-1	Research Project 1
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 4, Semester 2	
EGH400-2	Research Project 2
EGH479	Advances in Civil Engineering Practice
2nd Major/Minor unit	
2nd Major/Minor unit	

If you're intended to select Medical Engineering Major, please refer your first year study plan at Medical major 1st Year - July Entry

Code	Title
Year 1 - Semester 2	
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
EGB100	Engineering Sustainability and Professional Practice
EGB113	Energy in Engineering Systems
OR	
PVB101	Physics of the Very Large
EGB123	Civil Engineering Systems
OR	
Foundation Unit Option	
Year 2 - Semester 1	
MZB126	Engineering Computation
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
EGB120	Foundations of Electrical Engineering
OR	
Foundation Unit Option	

Semesters

- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1

Code	Title
Year 1, Semester 2	
EGB100	Engineering Sustainability and Professional Practice
EGB113	Energy in Engineering Systems
Or	
PVB101	Physics of the Very Large
MZB125	Introductory Engineering Mathematics
Or	
MXB161	Computational Explorations
EGB123	Civil Engineering Systems
Year 2, Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
MZB126	Engineering Computation
EGB270	Civil Engineering Materials
Year 2, Semester 2	
EGB273	Principles of Construction
EGB120	Foundations of Electrical Engineering
Or	
Unit Option	
EGB373	Geotechnical Engineering
2nd Major/Minor unit	
Year 3, Semester 1	
EGB272	Traffic and Transport Engineering
EGB275	Structural Mechanics
EGB371	Engineering Hydraulics
2nd Major/Minor unit	
Year 3, Semester 2	
EGB376	Steel Design
EGH471	Advanced Water Engineering
EGH472	Advanced Highway and Pavement Engineering
2nd Major/Minor unit	
Year 4, Semester 1	
EGB375	Design of Concrete Structures
EGH404	Research in Engineering Practice
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 4, Semester 2	
EGH475	Advanced Concrete Structures
EGH479	Advances in Civil Engineering Practice
EGH400-1	Research Project 1

Bachelor of Engineering (Honours) (Civil)

2nd Major/Minor unit	
Year 5, Semester 1	
EGH400-2	Research Project 2
EGH473	Advanced Geotechnical Engineering
2nd Major/Minor unit	
2nd Major/Minor unit	

Semesters

- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1

Code	Title
Year 2, Semester 2	
EGB273	Principles of Construction
EGB373	Geotechnical Engineering
EGB275	Structural Mechanics
2nd Major/Minor unit	
Year 3, Semester 1	
EGB270	Civil Engineering Materials
EGB272	Traffic and Transport Engineering
EGB371	Engineering Hydraulics
2nd Major/Minor unit	
Year 3, Semester 2	
EGH471	Advanced Water Engineering
EGH472	Advanced Highway and Pavement Engineering
EGB376	Steel Design
2nd Major/Minor unit	
Year 4, Semester 1	
EGB375	Design of Concrete Structures
EGH473	Advanced Geotechnical Engineering
2nd Major/Minor unit	
EGH404	Research in Engineering Practice
- Substitute unit EGH403 if needed for Semester 1, 2016	
Year 4, Semester 2	
EGH475	Advanced Concrete Structures
EGH479	Advances in Civil Engineering Practice
EGH400-1	Research Project 1
2nd Major/Minor unit	
Year 5, Semester 1	
EGH400-2	Research Project 2
2nd Major/Minor unit	
2nd Major/Minor unit	
2nd Major/Minor unit	

Study Area Description
For more details and description on this minor please refer to the ***EN01 Complementary Studies*** at the Faculty's Student Zone under "Your Course" page.

This minor offers a lot of flexibility. Depending on your area of interest you can choose units focusing on **statistical science** (suggested pathway: MXB101, MXB107, MXB202, MXB242), **mathematical and statistical modelling** (suggested pathway: MXB101, MXB105, MXB221, MXB241**), applied mathematics** (suggested pathway: MXB105, MXB106, MXB202, MXB221), **simulation** (suggested pathway: MXB101, MXB106, MXB232, MXB261)**, computation and modelling** (suggested pathway: MXB103, MXB105, MXB221, MXB261).

In this list

Unit List	
Code	Title
Select 2 units (24 credit points) from Unit Option List 1:	
MXB101	Probability and Stochastic Modelling 1
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB107	Introduction to Statistical Modelling
Select 2 units (24 credit points) from Unit Option List 2:	
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations
MXB232	Introduction to Operations Research
MXB241	Probability and Stochastic Modelling 2
MXB242	Regression and Design
MXB261	Modelling and Simulation Science

SUGGESTED PATHWAYS	
Code	Title

Statistical Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB107	Introduction to Statistical Modelling
MXB202	Advanced Calculus
MXB242	Regression and Design

Mathematical and Statistical Modelling	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB241	Probability and Stochastic Modelling 2

Applied Mathematics	
Code	Title
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations

Simulation Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB106	Linear Algebra and Differential Equations
MXB232	Introduction to Operations Research
MXB261	Modelling and Simulation Science

Computation, modelling and simulation	
Code	Title
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and

	Two Variables
MXB221	Ordinary Differential Equations
MXB261	Modelling and Simulation Science

Bachelor of Engineering (Honours) (Computer and Software Systems)

Handbook

Year	2017
QUT code	EN01
CRICOS	084921G
Duration (full-time)	4 years
OP	9
Rank	81
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $32300 per year full-time (96 credit points)
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Dr Wayne Kelly w.kelly@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

Complementary Studies

You will have the opportunity to undertaken either a 2nd major or two minors.

Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Honours)(Computer and Software Systems) must obtain at least 60 days of industrial experience/practice in an engineering environment as approved by the course coordinator.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Domestic Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points)
- Complementary studies: one x second major or two x minor (96 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

International Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: One (1) block of eight (8) major units 96cp plus eight (8) Honours level units 96cp (192 credit points)
- Complementary Studies: 1 x 2nd major or 2 x minor (96 credit points)

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x Advanced major units 60cp

Sample Structure

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
EGB111	Foundation of Engineering Design
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics

Bachelor of Engineering (Honours) (Computer and Software Systems)

OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
MZB126	Engineering Computation
Plus 36cp from ONE of the Engineering Foundation Strands	

Please note -

This is an example study plan for students on a relatively standard progression, however, depending on which units and second majors/minors you choose, you may need to deviate from that plan. Please contact your Subject Area Coordinator **Dr Wayne Kelly**, Email: w.kelly@qut.edu.au if you wish to discuss your study plan options.

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 2, Semester 1	
EGB240	Electronic Design
CAB201	Programming Principles
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 2, Semester 2	
CAB202	Microprocessors and Digital Systems
EGB242	Signal Analysis
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
Intermediate Software Unit Option	
2nd Major/Minor unit	
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 2	
CAB403	Systems Programming
Intermediate Electrical Unit Option	
Intermediate Electrical or Software Unit Option	
EGH404	Research in Engineering Practice
Year 4, Semester 1	
Advanced Electrical Unit Option	
EGH400-1	Research Project 1
EGH456	Embedded Systems
2nd Major/Minor unit	
Year 4, Semester 2	
EGH400-2	Research Project 2
EGH455	Advanced Systems Design
Advanced Electrical or Software Unit Option	
Advanced Software Unit Option	

If you're intended to select Medical Engineering Major, please refer your first year study plan at Medical major 1st Year - July Entry

Code	Title
Year 1 - Semester 2	
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
EGB100	Engineering Sustainability and Professional Practice
EGB113	Energy in Engineering Systems
OR	
PVB101	Physics of the Very Large
EGB123	Civil Engineering Systems
OR	
Foundation Unit Option	
Year 2 - Semester 1	
MZB126	Engineering Computation
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
EGB120	Foundations of Electrical Engineering
OR	
Foundation Unit Option	

Please note -

This is an example study plan for students on a relatively standard progression, however, depending on which units and second majors/minors you choose, you may need to deviate from that plan. Please contact your Subject Area Coordinator **Dr Wayne Kelly**, Email: w.kelly@qut.edu.au if you wish to discuss your study plan options.

Semesters

- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1

Code	Title
Year 2, Semester 2	
EGB242	Signal Analysis
CAB201	Programming Principles
CAB202	Microprocessors and Digital Systems
2nd Major/Minor unit	
Year 3, Semester 1	
EGB240	Electronic Design
Intermediate Software Unit Option	
Intermediate Software Unit Option	
2nd Major/Minor unit	
Year 3, Semester 2	
CAB403	Systems Programming
Intermediate Electrical Unit Option	
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 4, Semester 1	
EGH456	Embedded Systems
Advanced Electrical Unit Option	
Advanced Software Unit Option	
EGH404	Research in Engineering Practice
Year 4, Semester 2	
2nd Major/Minor unit	
2nd Major/Minor unit	
EGH455	Advanced Systems Design
EGH400-1	Research Project 1
Year 5, Semester 1	
EGH400-2	Research Project 2
Advanced Electrical Unit Option	
2nd Major/Minor unit	
2nd Major/Minor unit	

Study Area Description
For more details and description on this minor please refer to the ***EN01 Complementary Studies*** at the Faculty's Student Zone under "Your Course" page.

This minor offers a lot of flexibility. Depending on your area of interest you can choose units focusing on **statistical science** (suggested pathway: MXB101, MXB107, MXB202, MXB242), **mathematical and statistical modelling** (suggested pathway: MXB101, MXB105, MXB221, MXB241**), applied**

mathematics (suggested pathway: MXB105, MXB106, MXB202, MXB221), **simulation** (suggested pathway: MXB101, MXB106, MXB232, MXB261)**, computation and modelling** (suggested pathway: MXB103, MXB105, MXB221, MXB261).

In this list

Unit List	
Code	Title
Select 2 units (24 credit points) from Unit Option List 1:	
MXB101	Probability and Stochastic Modelling 1
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB107	Introduction to Statistical Modelling
Select 2 units (24 credit points) from Unit Option List 2:	
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations
MXB232	Introduction to Operations Research
MXB241	Probability and Stochastic Modelling 2
MXB242	Regression and Design
MXB261	Modelling and Simulation Science

SUGGESTED PATHWAYS	
Code	Title

Statistical Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB107	Introduction to Statistical Modelling
MXB202	Advanced Calculus
MXB242	Regression and Design

Mathematical and Statistical Modelling	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB241	Probability and Stochastic Modelling 2

Applied Mathematics	
Code	Title
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations

Simulation Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB106	Linear Algebra and Differential Equations
MXB232	Introduction to Operations Research
MXB261	Modelling and Simulation Science

Computation, modelling and simulation	
Code	Title
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB261	Modelling and Simulation Science

Bachelor of Engineering (Honours) (Electrical and Aerospace)

Handbook

Year	2017
QUT code	EN01
CRICOS	084921G
Duration (full-time)	4 years
OP	9
Rank	81
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $32300 per year full-time (96 credit points)
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Associate Professor Felipe Gonzalez

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

Complementary Studies

You will have the opportunity to undertaken either a 2nd major or two minors.

Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Honours)(Electrical and Aerospace) must obtain at least 60 days of industrial experience/practice in an engineering environment as approved by the course coordinator.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Domestic Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points)
- Complementary studies: one x second major or two x minor (96 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

International Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: One (1) block of eight (8) major units 96cp plus eight (8) Honours level units 96cp (192 credit points)
- Complementary Studies: 1 x 2nd major or 2 x minor (96 credit points)

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x Advanced major units 60cp

Sample Structure

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
EGB111	Foundation of Engineering Design
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics

Bachelor of Engineering (Honours) (Electrical and Aerospace)

OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
MZB126	Engineering Computation
Plus 36cp from ONE of the Engineering Foundation Strands	

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 2, Semester 1	
EGB240	Electronic Design
CAB202	Microprocessors and Digital Systems
EGB242	Signal Analysis
EGB243	Aircraft Systems and Flight
Year 2, Semester 2	
EGB345	Control and Dynamic Systems
EGB346	Unmanned Aircraft Systems
Intermediate Electrical & Areospace Unit Option	
2nd Major/Minor unit	
Year 3, Semester 1	
EGB349	Systems Engineering and Design Project
Advanced Electrical & Areospace Unit Option	
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 2	
EGH445	Modern Control
EGH450	Advanced Unmanned Aircraft Systems
2nd Major/Minor unit	
EGH404	Research in Engineering Practice
Year 4, Semester 1	
EGH400-1	Research Project 1
EGH446	Autonomous Systems
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 4, Semester 2	
EGH400-2	Research Project 2
Advanced Electrical & Aerospace Unit Option	
2nd Major/Minor unit	
2nd Major/Minor unit	

If you're intended to select Medical Engineering Major, please refer your first year study plan at Medical major 1st Year - July Entry

Code	Title
Year 1 - Semester 2	
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
EGB100	Engineering Sustainability and Professional Practice
EGB113	Energy in Engineering Systems
OR	
PVB101	Physics of the Very Large
EGB123	Civil Engineering Systems
OR	
Foundation Unit Option	
Year 2 - Semester 1	
MZB126	Engineering Computation
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
EGB120	Foundations of Electrical Engineering
OR	
Foundation Unit Option	

Semesters

- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1

Code	Title
Year 2, Semester 2	
EGB242	Signal Analysis
CAB202	Microprocessors and Digital Systems
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
EGB240	Electronic Design
EGB243	Aircraft Systems and Flight
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 2	
EGB345	Control and Dynamic Systems
EGB346	Unmanned Aircraft Systems
Intermediate Electrical & Aerospace Unit Option	
2nd Major/Minor unit	
Year 4, Semester 1	
EGB349	Systems Engineering and Design Project
2nd Major/Minor unit	
2nd Major/Minor unit	
EGH404	Research in Engineering Practice
Year 4, Semester 2	
EGH445	Modern Control
EGH450	Advanced Unmanned Aircraft Systems
Advanced Electrical & Aerospace Unit Option	
EGH400-1	Research Project 1
Year 5, Semester 1	
Advanced Electrical & Aerospace Unit Option	
EGH446	Autonomous Systems
EGH400-2	Research Project 2
2nd Major/Minor unit	

Study Area Description
For more details and description on this minor please refer to the ***EN01 Complementary Studies*** at the Faculty's Student Zone under "Your Course" page.

This minor offers a lot of flexibility. Depending on your area of interest you can choose units focusing on **statistical science** (suggested pathway: MXB101, MXB107, MXB202, MXB242), **mathematical and statistical modelling** (suggested pathway: MXB101, MXB105, MXB221, MXB241**), applied mathematics** (suggested pathway: MXB105, MXB106, MXB202, MXB221), **simulation** (suggested pathway: MXB101, MXB106, MXB232, MXB261)**, computation and modelling** (suggested pathway: MXB103, MXB105, MXB221, MXB261).

In this list

Bachelor of Engineering (Honours) (Electrical and Aerospace)

Unit List	
Code	Title
Select 2 units (24 credit points) from Unit Option List 1:	
MXB101	Probability and Stochastic Modelling 1
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB107	Introduction to Statistical Modelling
Select 2 units (24 credit points) from Unit Option List 2:	
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations
MXB232	Introduction to Operations Research
MXB241	Probability and Stochastic Modelling 2
MXB242	Regression and Design
MXB261	Modelling and Simulation Science

SUGGESTED PATHWAYS	
Code	Title

Statistical Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB107	Introduction to Statistical Modelling
MXB202	Advanced Calculus
MXB242	Regression and Design

Mathematical and Statistical Modelling	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB241	Probability and Stochastic Modelling 2

Applied Mathematics	
Code	Title
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations

Simulation Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB106	Linear Algebra and Differential Equations
MXB232	Introduction to Operations Research
MXB261	Modelling and Simulation Science

Computation, modelling and simulation	
Code	Title
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB261	Modelling and Simulation Science

Bachelor of Engineering (Honours) (Electrical)

Handbook

Year	2017
QUT code	EN01
CRICOS	084921G
Duration (full-time)	4 years
OP	9
Rank	81
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $32300 per year full-time (96 credit points)
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Dr Jacob Coetzee 3138 2865 jacob.coetzee@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

Complementary Studies

You will have the opportunity to undertaken either a 2nd major or two minors.

Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Honours)(Electrical) must obtain at least 60 days of industrial experience/practice in an engineering environment as approved by the course coordinator.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Domestic Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points)
- Complementary studies: one x second major or two x minor (96 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

International Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: One (1) block of eight (8) major units 96cp plus eight (8) Honours level units 96cp (192 credit points)
- Complementary Studies: 1 x 2nd major or 2 x minor (96 credit points)

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x Advanced major units 60cp

Sample Structure

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
EGB111	Foundation of Engineering Design
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics

Bachelor of Engineering (Honours) (Electrical)

OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
MZB126	Engineering Computation
Plus 36cp from ONE of the Engineering Foundation Strands	

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Intermediate Electrical Unit Options List
- Advanced Electrical Unit Options List

Code	Title
Year 2, Semester 1	
EGB241	Electromagnetics and Machines
EGB242	Signal Analysis
CAB202	Microprocessors and Digital Systems
EGB240	Electronic Design
Year 2, Semester 2	
Intermediate Electrical Option Unit[1]	
Intermediate Electrical Option Unit[2]	
Intermediate Electrical Option Unit[3]	
2nd Major/Minor unit[1]	
Year 3, Semester 1	
EGB340	Design and Practice
Advanced Electrical Option Unit[1]	
Advanced Electrical Option Unit [2]or 2nd Major/Minor unit[2]	
2nd Major/Minor unit[3]	
Year 3, Semester 2	
Advanced Electrical Option Unit[3]	
Advanced Electrical Option Unit[4]	
2nd Major/Minor unit[2] or Advanced Electrical Option Unit [2]	
EGH404	Research in Engineering Practice
To be replaced by EGH404 from Semester 2, 2016 - Substitute unit EGH403 if needed for Semester 1 2016	
Year 4, Semester 1	
EGH400-1	Research Project 1
2nd Major/Minor unit[4]	
2nd Major/Minor unit[5]	
2nd Major/Minor unit[6]	
Year 4, Semester 2	
EGH400-2	Research Project 2
Advanced Electrical Option Unit[5]	
2nd Major/Minor unit[7]	
2nd Major/Minor unit[8]	
Intermediate Electrical Unit Options List	
EGB341	Energy Supply and Delivery
EGB342	Telecommunications and Signal Processing
EGB345	Control and Dynamic Systems
EGB348	Electronics
Advanced Electrical Unit Options List	
EGH440	Power Systems Analysis
EGH441	Power System Modelling
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics

If you're intended to select Medical Engineering Major, please refer your first year study plan at Medical major 1st Year - July Entry

Code	Title
Year 1 - Semester 2	
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
EGB100	Engineering Sustainability and Professional Practice
EGB113	Energy in Engineering Systems
OR	
PVB101	Physics of the Very Large
EGB123	Civil Engineering Systems
OR	
Foundation Unit Option	
Year 2 - Semester 1	
MZB126	Engineering Computation
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
EGB120	Foundations of Electrical Engineering
OR	
Foundation Unit Option	

Please refer to the Engineering Honours Majors page under "Your Course" at the Faculty's Student Zone for more details, including a course diagram, on the Electrical engineering major.

Semesters

- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1
- Intermediate Electrical Unit Options List
- Advanced Electrical Unit Options List

Code	Title
Year 2, Semester 2	
EGB242	Signal Analysis
CAB202	Microprocessors and Digital Systems
2nd Major/Minor Unit[1]	
2nd Major/Minor Unit[2]	
Year 3, Semester 1	
EGB241	Electromagnetics and Machines
EGB240	Electronic Design
2nd Major/Minor Unit[3]	
2nd Major/Minor Unit[4]	
Year 3, Semester 2	
Intermediate Electrical Option Unit[1]	
Intermediate Electrical Option Unit[2]	
Intermediate Electrical Option Unit[3]	
2nd Major/Minor Unit[5]	
Year 4, Semester 1	
EGB340	Design and Practice
Advanced Electrical Option Unit[1]	
Advanced Electrical Option Unit[2]	
EGH404	Research in Engineering Practice
To be replaced by EGH404 from Semester 2, 2016 - Substitute unit EGH403 if needed for Semester 1 2016	
Year 4, Semester 2	
EGH400-1	Research Project 1
Advanced Electrical Option Unit[5] or 2nd Major/Minor unit[6]	
Advanced Electrical Option Unit[3]	
Advanced Electrical Option Unit[4]	
Year 5, Semester 1	
EGH400-2	Research Project 2

Bachelor of Engineering (Honours) (Electrical)

Advanced Electrical Option Unit [5]or 2nd Major/Minor unit[6]	
2nd Major/Minor unit[7]	
2nd Major/Minor unit[8]	
Intermediate Electrical Unit Options List	
EGB341	Energy Supply and Delivery
EGB342	Telecommunications and Signal Processing
EGB345	Control and Dynamic Systems
EGB348	Electronics
Advanced Electrical Unit Options List	
EGH440	Power Systems Analysis
EGH441	Power System Modelling
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics

Study Area Description
For more details and description on this minor please refer to the ***EN01 Complementary Studies*** at the Faculty's Student Zone under "Your Course" page.

This minor offers a lot of flexibility. Depending on your area of interest you can choose units focusing on **statistical science** (suggested pathway: MXB101, MXB107, MXB202, MXB242), **mathematical and statistical modelling** (suggested pathway: MXB101, MXB105, MXB221, MXB241**), applied mathematics** (suggested pathway: MXB105, MXB106, MXB202, MXB221), **simulation** (suggested pathway: MXB101, MXB106, MXB232, MXB261)**, computation and modelling** (suggested pathway: MXB103, MXB105, MXB221, MXB261).

In this list

Unit List	
Code	Title
Select 2 units (24 credit points) from Unit Option List 1:	
MXB101	Probability and Stochastic Modelling 1
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB107	Introduction to Statistical Modelling
Select 2 units (24 credit points) from Unit Option List 2:	
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations
MXB232	Introduction to Operations Research
MXB241	Probability and Stochastic Modelling 2
MXB242	Regression and Design
MXB261	Modelling and Simulation Science

SUGGESTED PATHWAYS	
Code	Title

Statistical Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB107	Introduction to Statistical Modelling
MXB202	Advanced Calculus
MXB242	Regression and Design

Mathematical and Statistical Modelling	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB241	Probability and Stochastic Modelling 2

Applied Mathematics	
Code	Title
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations

Simulation Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB106	Linear Algebra and Differential Equations
MXB232	Introduction to Operations Research
MXB261	Modelling and Simulation Science

Computation, modelling and simulation	
Code	Title
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB261	Modelling and Simulation Science

Bachelor of Engineering (Honours) (Mechanical)

Handbook

Year	2017
QUT code	EN01
CRICOS	084921G
Duration (full-time)	4 years
OP	9
Rank	81
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $32300 per year full-time (96 credit points)
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Professor Ted Steinberg

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

Complementary Studies

You will have the opportunity to undertaken either a 2nd major or two minors.

Special Course Requirements

candidate for the degree of Bachelor of Engineering (Honours)(Mechanical) must obtain at least 60 days of industrial experience/practice in an engineering environment as approved by the course coordinator.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Domestic Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points)
- Complementary studies: one x second major or two x minor (96 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

International Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: One (1) block of eight (8) major units 96cp plus eight (8) Honours level units 96cp (192 credit points)
- Complementary Studies: 1 x 2nd major or 2 x minor (96 credit points)

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x Advanced major units 60cp

Sample Structure

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
EGB111	Foundation of Engineering Design
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics

Bachelor of Engineering (Honours) (Mechanical)

OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
MZB126	Engineering Computation
Plus 36cp from ONE of the Engineering Foundation Strands	

If you're intended to select Medical Engineering Major, please refer your first year study plan at Medical major 1st Year - July Entry

Code	Title
Year 1 - Semester 2	
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
EGB100	Engineering Sustainability and Professional Practice
EGB113	Energy in Engineering Systems
OR	
PVB101	Physics of the Very Large
EGB123	Civil Engineering Systems
OR	
Foundation Unit Option	
Year 2 - Semester 1	
MZB126	Engineering Computation
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
EGB120	Foundations of Electrical Engineering
OR	
Foundation Unit Option	

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 2, Semester 1	
EGB210	Fundamentals of Mechanical Design
EGB211	Dynamics
EGB214	Materials and Manufacturing
EGB323	Fluid Mechanics
Year 2, Semester 2	
EGB314	Strength of Materials
EGB322	Thermodynamics
2nd Major/Minor unit option	
2nd Major/Minor unit option	
Year 3, Semester 1	
EGB316	Design of Machine Elements
EGB321	Dynamics of Machines
EGH414	Stress Analysis
2nd Major/Minor unit option	
Year 3, Semester 2	
EGH404	Research in Engineering Practice
EGH422	Advanced Thermodynamics
EGH423	Fluids Dynamics
2nd Major/Minor unit option	
Year 4, Semester 1	
BEB801	Project 1
BEB801 is equivalent to EGH400-1	
EGH421	Vibration and Control
2nd Major/Minor unit option	
2nd Major/Minor unit option	
Year 4, Semester 2	
BEB802	Project 2
BEB802 is equivalent to EGH400-2	
EGH420	Mechanical Systems Design
2nd Major/Minor unit option	
2nd Major/Minor unit option	

Semesters

- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1

Code	Title
Year 2, Semester 2	
EGB211	Dynamics
EGB322	Thermodynamics
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
EGB210	Fundamentals of Mechanical Design
EGB214	Materials and Manufacturing
EGB323	Fluid Mechanics
2nd Major/Minor unit	
Year 3, Semester 2	
EGB314	Strength of Materials
EGH422	Advanced Thermodynamics
EGH423	Fluids Dynamics
2nd Major/Minor unit	
Year 4, Semester 1	
EGB316	Design of Machine Elements
EGB321	Dynamics of Machines
EGH404	Research in Engineering Practice
EGH414	Stress Analysis
Year 4, Semester 2	
BEB801	Project 1
BEB801 is equivalent to EGH400-1	
EGH420	Mechanical Systems Design
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 5, Semester 1	
BEB802	Project 2
BEB802 is equivalent to EGH400-2	
EGH421	Vibration and Control
2nd Major/Minor unit	
2nd Major/Minor unit	

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 2, Semester 1	
EGB210	Fundamentals of Mechanical Design
EGB211	Dynamics
EGB214	Materials and Manufacturing
EGB314	Strength of Materials
Year 2, Semester 2	
EGB321	Dynamics of Machines
EGB322	Thermodynamics
EGB323	Fluid Mechanics
2nd Major/Minor unit option	
Year 3, Semester 1	

Bachelor of Engineering (Honours) (Mechanical)

EGB316	Design of Machine Elements
EGH414	Stress Analysis
2nd Major/Minor unit option	
2nd Major/Minor unit option	
Year 3, Semester 2	
EGH404	Research in Engineering Practice
EGH423	Fluids Dynamics
EGH422	Advanced Thermodynamics
2nd Major/Minor unit option	
Year 4, Semester 1	
EGH400-1	Research Project 1
EGH421	Vibration and Control
2nd Major/Minor unit option	
2nd Major/Minor unit option	
Year 4, Semester 2	
EGH400-2	Research Project 2
EGH420	Mechanical Systems Design
2nd Major/Minor unit option	
2nd Major/Minor unit option	

Semesters

- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1

Code	Title
Year 2, Semester 2	
EGB211	Dynamics
EGB323	Fluid Mechanics
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
EGB210	Fundamentals of Mechanical Design
EGB214	Materials and Manufacturing
EGB321	Dynamics of Machines
2nd Major/Minor unit	
Year 3, Semester 2	
EGB314	Strength of Materials
EGB322	Thermodynamics
EGH423	Fluids Dynamics
2nd Major/Minor unit	
Year 4, Semester 1	
EGB316	Design of Machine Elements
EGH404	Research in Engineering Practice
EGH414	Stress Analysis
2nd Major/Minor unit	
Year 4, Semester 2	
EGH400-1	Research Project 1
EGH420	Mechanical Systems Design
EGH422	Advanced Thermodynamics
2nd Major/Minor unit	
Year 5, Semester 1	
EGH400-2	Research Project 2
EGH421	Vibration and Control
2nd Major/Minor unit	
2nd Major/Minor unit	

Study Area Description
For more details and description on this minor please refer to the ***EN01 Complementary Studies*** at the Faculty's Student Zone under "Your Course" page.

This minor offers a lot of flexibility. Depending on your area of interest you can choose units focusing on **statistical science** (suggested pathway: MXB101, MXB107, MXB202, MXB242), **mathematical and statistical modelling** (suggested pathway: MXB101, MXB105, MXB221, MXB241**), applied mathematics** (suggested pathway: MXB105, MXB106, MXB202, MXB221), **simulation** (suggested pathway: MXB101, MXB106, MXB232, MXB261)**, computation and modelling** (suggested pathway: MXB103, MXB105, MXB221, MXB261).

In this list

Unit List	
Code	Title
Select 2 units (24 credit points) from Unit Option List 1:	
MXB101	Probability and Stochastic Modelling 1
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB107	Introduction to Statistical Modelling
Select 2 units (24 credit points) from Unit Option List 2:	
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations
MXB232	Introduction to Operations Research
MXB241	Probability and Stochastic Modelling 2
MXB242	Regression and Design
MXB261	Modelling and Simulation Science

SUGGESTED PATHWAYS	
Code	Title

Statistical Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB107	Introduction to Statistical Modelling
MXB202	Advanced Calculus
MXB242	Regression and Design

Mathematical and Statistical Modelling	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB241	Probability and Stochastic Modelling 2

Applied Mathematics	
Code	Title
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations

Simulation Science	
Code	Title
MXB101	Probability and Stochastic Modelling

	1
MXB106	Linear Algebra and Differential Equations
MXB232	Introduction to Operations Research
MXB261	Modelling and Simulation Science

Computation, modelling and simulation	
Code	Title
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB261	Modelling and Simulation Science

Bachelor of Engineering (Honours) (Mechatronics)

Handbook

Year	2017
QUT code	EN01
CRICOS	084921G
Duration (full-time)	4 years
OP	9
Rank	81
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $32300 per year full-time (96 credit points)
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Associate Professor Jason Ford

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

Complementary Studies

You will have the opportunity to undertaken either a 2nd major or two minors.

Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Honours)(Mechatronics) must obtain at least 60 days of industrial experience/practice in an engineering environment as approved by the course coordinator.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Domestic Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points)
- Complementary studies: one x second major or two x minor (96 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

International Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: One (1) block of eight (8) major units 96cp plus eight (8) Honours level units 96cp (192 credit points)
- Complementary Studies: 1 x 2nd major or 2 x minor (96 credit points)

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x Advanced major units 60cp

Sample Structure

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
EGB111	Foundation of Engineering Design
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics

Bachelor of Engineering (Honours) (Mechatronics)

OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
MZB126	Engineering Computation
Plus 36cp from ONE of the Engineering Foundation Strands	

Please note that the highlighted units must be enrolled in the year and semester specified

The hlighted units are EGB242, CAB202, EGB345, EGH446, SEB400, EGH400-1 and EGH400-2

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 2, Semester 1	
EGB242	Signal Analysis
CAB202	Microprocessors and Digital Systems
EGB220	Mechatronics Design 1
2nd Major/Minor unit	
EGB211	Dynamics
2nd Major/Minor Unit	
Year 2, Semester 2	
EGB345	Control and Dynamic Systems
EGB320	Mechatronics Design 2
2nd Major/Minor unit	
EGB211	Dynamics
2nd Major/Minor unit	
Intermediate Electrical Unit Option	
2nd major/Minor unit	
Year 3, Semester 1	
EGH446	Autonomous Systems
EGB321	Dynamics of Machines
2nd Major/Minor unit	
EGB220	Mechatronics Design 1
OR	
EGH419	Mechatronics Design 3
2nd major/Minor unit	
Advanced Electrical Unit Option	
2nd Major/Minor unit	
Year 3, Semester 2	
EGH404	Research in Engineering Practice
EGB320	Mechatronics Design 2
EGH445	Modern Control
Intermediate/ Advanced Electrical Unit Option	
2nd Major/Minor unit	
EGH413	Advanced Dynamics
2nd Major/Minor unit	
Year 4, Semester 1	
EGH400-1	Research Project 1
EGH419	Mechatronics Design 3
2nd Major/Minor unit	
Advanced Electrical Unit Option	
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 4, Semester 2	
EGH400-2	Research Project 2
EGH413	Advanced Dynamics
2nd Major/Minor unit	
EGH445	Modern Control
2nd Major/Minor unit	
Advanced Electrical Unit Options	
2nd Major/Minor unit	

If you're intended to select Medical Engineering Major, please refer your first year study plan at Medical major 1st Year - July Entry

Code	Title
Year 1 - Semester 2	
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
EGB100	Engineering Sustainability and Professional Practice
EGB113	Energy in Engineering Systems
OR	
PVB101	Physics of the Very Large
EGB123	Civil Engineering Systems
OR	
Foundation Unit Option	
Year 2 - Semester 1	
MZB126	Engineering Computation
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
EGB120	Foundations of Electrical Engineering
OR	
Foundation Unit Option	

This is an example study plan for students on a relatively standard progression, however, depending on which units and second majors/minors you choose, you may need to deviate from that plan. Please contact sef.enquiry@qut.edu.au if you wish to discuss your study plan options.

Semesters

- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1

Code	Title
Year 2, Semester 2	
CAB202	Microprocessors and Digital Systems
EGB211	Dynamics
EGB242	Signal Analysis
2nd Major/Minor Unit	
Year 3, Semester 1	
EGB220	Mechatronics Design 1
EGB321	Dynamics of Machines
2nd Major/Minor Unit	
2nd Major/Minor Unit	
Year 3, Semester 2	
EGB345	Control and Dynamic Systems
EGB320	Mechatronics Design 2
EGH413	Advanced Dynamics
Intermediate Electrical Option Unit	
EGH413	Advanced Dynamics
2nd Major/Minor Unit	
Year 4, Semester 1	
EGH404	Research in Engineering Practice
EGH419	Mechatronics Design 3
EGH446	Autonomous Systems

Bachelor of Engineering (Honours) (Mechatronics)

2nd Major/Minor unit	
Year 4, Semester 2	
EGH400-1	Research Project 1
EGH445	Modern Control
EGH413	Advanced Dynamics
Intermediate Electrical Option Unit	
2nd Major/Minor Unit	
2nd Major/Minor Unit	
Year 5, Semester 1	
EGH400-2	Research Project 2
Advanced Electrical Option Unit	
2nd Major/Minor Unit	
2nd Major/Minor Unit	

Study Area Description
For more details and description on this minor please refer to the ***EN01 Complementary Studies*** at the Faculty's Student Zone under "Your Course" page.

This minor offers a lot of flexibility. Depending on your area of interest you can choose units focusing on **statistical science** (suggested pathway: MXB101, MXB107, MXB202, MXB242), **mathematical and statistical modelling** (suggested pathway: MXB101, MXB105, MXB221, MXB241**), applied mathematics** (suggested pathway: MXB105, MXB106, MXB202, MXB221), **simulation** (suggested pathway: MXB101, MXB106, MXB232, MXB261)**, computation and modelling** (suggested pathway: MXB103, MXB105, MXB221, MXB261).

In this list

Unit List	
Code	Title
Select 2 units (24 credit points) from Unit Option List 1:	
MXB101	Probability and Stochastic Modelling 1
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB107	Introduction to Statistical Modelling
Select 2 units (24 credit points) from Unit Option List 2:	
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations
MXB232	Introduction to Operations Research
MXB241	Probability and Stochastic Modelling 2
MXB242	Regression and Design
MXB261	Modelling and Simulation Science

SUGGESTED PATHWAYS	
Code	Title

Statistical Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB107	Introduction to Statistical Modelling
MXB202	Advanced Calculus
MXB242	Regression and Design

Mathematical and Statistical Modelling	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB241	Probability and Stochastic Modelling 2

Applied Mathematics	
Code	Title
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations

Simulation Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB106	Linear Algebra and Differential Equations
MXB232	Introduction to Operations Research
MXB261	Modelling and Simulation Science

Computation, modelling and simulation	
Code	Title
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB261	Modelling and Simulation Science

Bachelor of Engineering (Honours) (Medical)

Handbook

Year	2017
QUT code	EN01
CRICOS	084921G
Duration (full-time)	4 years
OP	9
Rank	81
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $32300 per year full-time (96 credit points)
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Dr Devakar Epari d.epari@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

Complementary Studies

You will have the opportunity to undertaken either a 2nd major or two minors.

Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Honours)(Medical) must obtain at least 60 days of industrial experience/practice in an engineering environment as approved by the course coordinator.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Domestic Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points)
- Complementary studies: one x second major or two x minor (96 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

International Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: One (1) block of eight (8) major units 96cp plus eight (8) Honours level units 96cp (192 credit points)
- Complementary Studies: 1 x 2nd major or 2 x minor (96 credit points)

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x Advanced major units 60cp

Sample Structure

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
EGB111	Foundation of Engineering Design
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics

Bachelor of Engineering (Honours) (Medical)

OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
MZB126	Engineering Computation
Plus 36cp from ONE of the Engineering Foundation Strands	

Code	Title
Year 1, Semester 2	
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
EGB100	Engineering Sustainability and Professional Practice
EGB113	Energy in Engineering Systems
OR	
PVB101	Physics of the Very Large
EGB123	Civil Engineering Systems
OR	
Foundation Unit Option	
Year 1, Semester 1	
MZB126	Engineering Computation
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
LSB131	Anatomy

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 2, Semester 1	
EGB211	Dynamics
EGB214	Materials and Manufacturing
EGB210	Fundamentals of Mechanical Design
LSB131	Anatomy
Year 2, Semester 2	
EGB314	Strength of Materials
LSB231	Physiology
2nd Major/Minor unit option	
2nd Major/Minor unit option	
Year 3, Semester 1	
EGB319	BioDesign
EGB323	Fluid Mechanics
EGH414	Stress Analysis
2nd Major/Minor unit option	
Year 3, Semester 2	
EGH418	Biomechanics
EGH424	Biofluids
EGH404	Research in Engineering Practice
2nd Major/Minor unit	
Year 4, Semester 1	
EGH438	Biomaterials
EGH400-1	Research Project 1
2nd Major/Minor unit option	
2nd Major/Minor unit option	
Year 4, Semester 2	
EGH400-2	Research Project 2
EGH435	Modelling and Simulation for Medical Engineers
2nd Major/Minor unit option	
2nd Major/Minor unit option	

Semesters

- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1

Code	Title
Year 2, Semester 2	
LSB231	Physiology
EGB120	Foundations of Electrical Engineering
Or Foundation Unit Option	
EGB211	Dynamics
2nd Major/Minor unit	
Year 3, Semester 1	
EGB210	Fundamentals of Mechanical Design
EGB323	Fluid Mechanics
EGB214	Materials and Manufacturing
2nd Major/Minor unit	
Year 3, Semester 2	
EGH418	Biomechanics
EGB314	Strength of Materials
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 4, Semester 1	
EGB319	BioDesign
EGH404	Research in Engineering Practice
EGH414	Stress Analysis
2nd Major/Minor unit	
Year 4, Semester 2	
EGH424	Biofluids
EGH435	Modelling and Simulation for Medical Engineers
EGH400-1	Research Project 1
2nd Major/Minor unit	
Year 5, Semester 1	
EGH438	Biomaterials
EGH400-2	Research Project 2
2nd Major/Minor unit	
2nd Major/Minor unit	

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 2, Semester 1	
EGB211	Dynamics
EGB214	Materials and Manufacturing
EGB210	Fundamentals of Mechanical Design
LSB131	Anatomy
Year 2, Semester 2	
EGB323	Fluid Mechanics
LSB231	Physiology
2nd Major/Minor unit option	
2nd Major/Minor unit option	
Year 3, Semester 1	
EGB314	Strength of Materials
EGB319	BioDesign
2nd Major/Minor unit option	
2nd Major/Minor unit option	
Year 3, Semester 2	
EGH418	Biomechanics
EGH424	Biofluids
EGH404	Research in Engineering Practice
2nd Major/Minor unit	
Year 4, Semester 1	
EGH400-1	Research Project 1
EGH438	Biomaterials
EGH414	Stress Analysis
2nd Major/Minor unit option	
Year 4, Semester 2	

EGH400-2	Research Project 2
EGH435	Modelling and Simulation for Medical Engineers
2nd Major/Minor unit option	
2nd Major/Minor unit option	

Semesters

Code	Title
Year 2, Semester 2	
LSB231	Physiology
EGB120	Foundations of Electrical Engineering
Or Foundation Unit Option	
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
EGB210	Fundamentals of Mechanical Design
EGB211	Dynamics
EGB323	Fluid Mechanics
2nd Major/Minor unit	
Year 3, Semester 2	
EGH418	Biomechanics
EGB314	Strength of Materials
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 4, Semester 1	
EGB319	BioDesign
EGB214	Materials and Manufacturing
EGH404	Research in Engineering Practice
EGH414	Stress Analysis
Year 4, Semester 2	
EGH424	Biofluids
EGH435	Modelling and Simulation for Medical Engineers
EGH400-1	Research Project 1
2nd Major/Minor unit	
Year 5, Semester 1	
EGH438	Biomaterials
EGH400-2	Research Project 2
2nd Major/Minor unit	
2nd Major/Minor unit	

Study Area Description
For more details and description on this minor please refer to the ***EN01 Complementary Studies*** at the Faculty's Student Zone under "Your Course" page.

This minor offers a lot of flexibility. Depending on your area of interest you can choose units focusing on **statistical science** (suggested pathway: MXB101, MXB107, MXB202, MXB242), **mathematical and statistical modelling** (suggested pathway: MXB101, MXB105, MXB221, MXB241**), applied mathematics** (suggested pathway: MXB105, MXB106, MXB202, MXB221), **simulation** (suggested pathway: MXB101, MXB106, MXB232, MXB261)**, computation and modelling** (suggested pathway: MXB103, MXB105, MXB221, MXB261).

In this list

Unit List	
Code	Title
Select 2 units (24 credit points) from Unit Option List 1:	
MXB101	Probability and Stochastic Modelling 1
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB107	Introduction to Statistical Modelling
Select 2 units (24 credit points) from Unit Option List 2:	
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations
MXB232	Introduction to Operations Research
MXB241	Probability and Stochastic Modelling 2
MXB242	Regression and Design
MXB261	Modelling and Simulation Science

SUGGESTED PATHWAYS	
Code	Title

Statistical Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB107	Introduction to Statistical Modelling
MXB202	Advanced Calculus
MXB242	Regression and Design

Mathematical and Statistical Modelling	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB241	Probability and Stochastic Modelling 2

Applied Mathematics	
Code	Title
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations

Simulation Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB106	Linear Algebra and Differential Equations
MXB232	Introduction to Operations Research
MXB261	Modelling and Simulation Science

Computation, modelling and simulation	
Code	Title
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB261	Modelling and Simulation Science

Bachelor of Engineering (Honours) (Process)

Handbook

Year	2017
QUT code	EN01
CRICOS	084921G
Duration (full-time)	4 years
OP	9
Rank	81
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $32300 per year full-time (96 credit points)
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Associate Professor Robert Speight

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

Complementary Studies

You will have the opportunity to undertaken either a 2nd major or two minors.

Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Honours)(Process) must obtain at least 60 days of industrial experience/practice in an engineering environment as approved by the course coordinator.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Domestic Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points)
- Complementary studies: one x second major or two x minor (96 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

International Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: One (1) block of eight (8) major units 96cp plus eight (8) Honours level units 96cp (192 credit points)
- Complementary Studies: 1 x 2nd major or 2 x minor (96 credit points)

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x Advanced major units 60cp

Sample Structure

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
EGB111	Foundation of Engineering Design
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics

Bachelor of Engineering (Honours) (Process)

OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
MZB126	Engineering Computation
Plus 36cp from ONE of the Engineering Foundation Strands	

If you're intended to select Medical Engineering Major, please refer your first year study plan at Medical major 1st Year - July Entry

Code	Title
Year 1 - Semester 2	
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
EGB100	Engineering Sustainability and Professional Practice
EGB113	Energy in Engineering Systems
OR	
PVB101	Physics of the Very Large
EGB123	Civil Engineering Systems
OR	
Foundation Unit Option	
Year 2 - Semester 1	
MZB126	Engineering Computation
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
EGB120	Foundations of Electrical Engineering
OR	
Foundation Unit Option	

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 2, Semester 1	
CVB220	Process Principles
CVB101	General Chemistry
EGB323	Fluid Mechanics
EGB363	Safety and Environmental Management
Year 2, Semester 2	
EGB322	Thermodynamics
Second Major or Minor Unit	
Second Major or Minor Unit	
Second Major or Minor Unit	
Year 3, Semester 1	
EGB361	Minerals and Minerals Processing
EGB260	Operations Management and Process Economics
EGB461	Unit Operations
Second Major or Minor Unit	
Year 3, Semester 2	
EGH411	Industrial Chemistry
EGH422	Advanced Thermodynamics
EGH404	Research in Engineering Practice
Second Major or Minor Unit	
Year 4, Semester 1	
EGH400-1	Research Project 1
EGH360	Plant and Process Design
Second Major or Minor Unit	
Second Major or Minor Unit	
Year 4, Semester 2	
EGH400-2	Research Project 2
EGH423	Fluids Dynamics
EGH460	Advanced Process Modelling
Second Major or Minor Unit	

Semesters

- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1

Code	Title
Year 2, Semester 2	
CVB101	General Chemistry
EGB322	Thermodynamics
2nd Major/Minor Unit	
2nd Major/Minor Unit	
Year 3, Semester 1	
CVB220	Process Principles
EGB323	Fluid Mechanics
EGB260	Operations Management and Process Economics
EGB363	Safety and Environmental Management
Year 3, Semester 2	
EGH411	Industrial Chemistry
EGH422	Advanced Thermodynamics
EGH404	Research in Engineering Practice
2nd Major/Minor unit	
Year 4, Semester 1	
EGB461	Unit Operations
EGH423	Fluids Dynamics
EGH411	Industrial Chemistry
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 4, Semester 1	
EGB461	Unit Operations
EGH404	Research in Engineering Practice
EGB361	Minerals and Minerals Processing
2nd Major/Minor unit	
Year 4, Semester 2	
EGH422	Advanced Thermodynamics
EGH400-1	Research Project 1
EGH460	Advanced Process Modelling
2nd Major/Minor unit	
Year 5, Semester 1	
EGH400-2	Research Project 2
EGH360	Plant and Process Design
2nd Major/Minor unit	
2nd Major/Minor unit	

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 2, Semester 1	
CVB101	General Chemistry
EGB211	Dynamics
EGB260	Operations Management and Process Economics
EGB363	Safety and Environmental Management
Year 2, Semester 2	
EGB322	Thermodynamics
EGB323	Fluid Mechanics
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
EGB361	Minerals and Minerals Processing
EGB461	Unit Operations
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 2	
EGH411	Industrial Chemistry
EGH422	Advanced Thermodynamics

Bachelor of Engineering (Honours) (Process)

EGH404	Research in Engineering Practice
2nd Major/Minor unit	
Year 4, Semester 1	
EGH400-1	Research Project 1
EGH360	Plant and Process Design
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 4, Semester 2	
EGH400-2	Research Project 2
EGH423	Fluids Dynamics
EGH460	Advanced Process Modelling
2nd Major/Minor unit	

Semesters

- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1

Code	Title
Year 2, Semester 2	
CVB101	General Chemistry
EGB211	Dynamics
EGB323	Fluid Mechanics
2nd Major/Minor Unit	
Year 3, Semester 1	
EGB260	Operations Management and Process Economics
EGB361	Minerals and Minerals Processing
EGB363	Safety and Environmental Management
2nd Major/Minor unit	
Year 3, Semester 2	
EGB322	Thermodynamics
EGH411	Industrial Chemistry
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 4, Semester 1	
EGB461	Unit Operations
EGH404	Research in Engineering Practice
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 4, Semester 2	
EGH422	Advanced Thermodynamics
EGH400-1	Research Project 1
EGH423	Fluids Dynamics
EGH460	Advanced Process Modelling
Year 5, Semester 1	
EGH400-2	Research Project 2
EGH360	Plant and Process Design
2nd Major/Minor unit	
2nd Major/Minor unit	

Study Area Description
For more details and description on this minor please refer to the ***EN01 Complementary Studies*** at the Faculty's Student Zone under "Your Course" page.

This minor offers a lot of flexibility. Depending on your area of interest you can choose units focusing on **statistical science** (suggested pathway: MXB101, MXB107, MXB202, MXB242), **mathematical and statistical modelling** (suggested pathway: MXB101, MXB105, MXB221, MXB241**), applied mathematics** (suggested pathway: MXB105, MXB106, MXB202, MXB221), **simulation** (suggested pathway: MXB101, MXB106, MXB232, MXB261)**, computation and modelling** (suggested pathway: MXB103, MXB105, MXB221, MXB261).

In this list

Unit List	
Code	Title
Select 2 units (24 credit points) from Unit Option List 1:	
MXB101	Probability and Stochastic Modelling 1
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB107	Introduction to Statistical Modelling
Select 2 units (24 credit points) from Unit Option List 2:	
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations
MXB232	Introduction to Operations Research
MXB241	Probability and Stochastic Modelling 2
MXB242	Regression and Design
MXB261	Modelling and Simulation Science

SUGGESTED PATHWAYS	
Code	Title

Statistical Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB107	Introduction to Statistical Modelling
MXB202	Advanced Calculus
MXB242	Regression and Design

Mathematical and Statistical Modelling	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB241	Probability and Stochastic Modelling 2

Applied Mathematics	
Code	Title
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations

Simulation Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB106	Linear Algebra and Differential Equations
MXB232	Introduction to Operations Research
MXB261	Modelling and Simulation Science

Computation, modelling and simulation	
Code	Title
MXB103	Introductory

	Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB261	Modelling and Simulation Science

Bachelor of Engineering

Handbook

Year	2017
QUT code	EN40
CRICOS	056529D
Duration (full-time)	4 years
OP	9
Rank	82
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B
- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.0

Professional Recognition

Full professional accreditation from Engineers Australia has been given for all primary majors in this course. In addition, Software Engineering also has full professional accreditation with the Australian Computer Society.

Second Majors

Depending on your choice of primary major, you may have the opportunity to undertake a second major or two minors. A second major is an established set of eight units (96 credit points) in the same discipline. A minor is an established set of four units (48 credit points) in the same discipline or from anywhere in the University. You will select your primary major, second major and/or minors after the completion of your first year.

Honours

EN40 students who meet GPA requirements are eligible to be awarded Bachelor of Engineering with Honours. The Honours GPA requirements are set out in MOPP – 5.2.5 Grading system – awards with honours and bachelor honours degrees.

Special Course Requirements

A candidate for the degree of Bachelor of Engineering must obtain at least 60 days of industrial experience/practice in an engineering environment as approved by the course coordinator.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Bachelor of Engineering (Aerospace Avionics)

Handbook

Year	2017
QUT code	EN40
CRICOS	056529D
Duration (full-time)	4 years
OP	9
Rank	82
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Associate Professor Felipe Gonzalez

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B
- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.0

Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

Honours

EN40 students who meet GPA requirements are eligible to be awarded Bachelor of Engineering with Honours. The Honours GPA requirements are set out in MOPP – 5.2.5 Grading system – awards with honours and bachelor honours degrees.

Special Course Requirements

Students must complete 60 days approved industrial experience in an engineering environment, including 10 days specialist experience in the avionics industry as part of the Work Integrated Learning unit.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Domestic Course structure

Work Integrated Learning unit

Students must complete 60 days approved industrial experience in an engineering environment, including 10 days specialist experience in the avionics industry as part of the Work Integrated Learning unit.

Your course

Year 1

Common first-year units include the foundation of engineering mathematics, basic principles of sustainability, electrical engineering, engineering mechanics, engineering design and engineering materials. These units provide a strong, fundamental overview of the three engineering streams: civil, electrical and mechanical.

Year 2

A solid grounding in the basic terminology and work practices commonly employed in the aerospace industry provide an understanding of air, spacecraft flight control principles and safety aspects of aviation. Exciting wind tunnel tests and understanding of Mach number effects, fundamentals of aircraft performance, estimating range and endurance, take off and landing calculations and light envelopes also feature.

Year 3

Emphasis on the flight control systems of modern aircraft, which is one of the primary subsystems. You are introduced to methods for modelling the dynamic behaviour of aircraft, missiles and spacecraft, and criteria for stability. Systems engineering methodologies and techniques are applied to aerospace engineering projects such as design and operation of a fully autonomous micro air vehicle or rocket.

Year 4

Advanced concepts such as spacecraft guidance and navigation, orbit and altitude determination, dynamics for low earth satellites and also the dynamics of rocket ascent trajectories. Relevant RF and applied electromagnetic aerospace radio radar systems and navigation systems for aircraft are explored. You

undertake a one-year project and work integrated learning.

International Course structure

Work Integrated Learning unit

Students must complete 60 days approved industrial experience in an engineering environment, including 10 days specialist experience in the avionics industry as part of the Work Integrated Learning unit.

Your course

Year 1

Common first-year units include the foundation of engineering mathematics, basic principles of sustainability, electrical engineering, engineering mechanics, engineering design and engineering materials. These units provide a strong, fundamental overview of the three engineering streams: civil, electrical and mechanical.

Year 2

A solid grounding in the basic terminology and work practices commonly employed in the aerospace industry provide an understanding of air, spacecraft flight control principles and safety aspects of aviation. Exciting wind tunnel tests and understanding of Mach number effects, fundamentals of aircraft performance, estimating range and endurance, take off and landing calculations and light envelopes also feature.

Year 3

Emphasis on the flight control systems of modern aircraft, which is one of the primary subsystems. You are introduced to methods for modelling the dynamic behaviour of aircraft, missiles and spacecraft, and criteria for stability. Systems engineering methodologies and techniques are applied to aerospace engineering projects such as design and operation of a fully autonomous micro air vehicle or rocket.

Year 4

Advanced concepts such as spacecraft guidance and navigation, orbit and altitude determination, dynamics for low earth satellites and also the dynamics of rocket ascent trajectories. Relevant RF and applied electromagnetic aerospace radio radar systems and navigation systems for aircraft are explored. You undertake a one-year project and work integrated learning.

Sample Structure

Course Updates

From 2015, some first year core units in EN40 Bachelor of Engineering have been recoded, renamed or discontinued. To see how these changes affect you, please consult the Engineering unit replacement table below in conjunction with the revised 2015 course structures. Affected Study Plans are being amended to reflect the changes.

Please contact the Faculty if you have any concerns.

Engineering Unit Replacement Table

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Aerospace Avionics Selectives

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
[ENB100 replaced by EGB100 in 2015.]	
EGB121	Engineering Mechanics
[ENB110 replaced by EGB121 in SEM-2 2015.]	
EGB113	Energy in Engineering Systems
[ENB130 replaced by EGB113 in 2015.]	
MZB125	Introductory Engineering Mathematics
[MAB125 replaced by MZB125 in 2015.]	
Or	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2015.]	
Year 1 - Semester 2	
EGB120	Foundations of Electrical Engineering
[ENB120 replaced by EGB120 in 2015]	
EGB111	Foundation of Engineering Design
[ENB150 replaced by EGB111 in 2015.]	
Engineering Unit Option (ENEN-OPTIONS)	
[Engineering Unit Option replaces ENB200 in 2015. See Engineering Unit Option List]	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2015.]	
OR	
MXB105	Calculus of One and Two Variables
[MAB127 replaced by MXB105 in SEM-2 2015.]	
Year 2 - Semester 1	
ENB240	Introduction To Electronics
ENB246	Engineering Problem Solving
EGB241	Electromagnetics and Machines
[ENB250 replaced by EGB241 or ELEC-OPTIONS (if both ENB250 and ENB343 to complete). See Study Plan for unit options in 2016]	
MXB105	Calculus of One and Two Variables
[MAB127 replaced by MXB105 in SEM-2 2015.]	
OR	
MXB107	Introduction to Statistical Modelling
[MAB233 replaced by MXB107 in 2015.]	
Year 2 - Semester 2	
ENB121	Aerodynamics
Note: ENB121 is replaced by EGB243 (sem 1 unit) from 2016 -	
EGB243	Aircraft Systems and Flight
EGB242	Signal Analysis
ENB242 replaced by EGB242 in 2016.	
ENB205	Electrical and Computer Engineering
[ENB243 replaced by ENB205 or ELEC-OPTIONS in 2016.]	
CAB202	Microprocessors and Digital Systems
[ENB244 replaced by CAB202 in 2014.]	
Year 3 - Semester 1	
ENB241	Software Systems Design
ENB342	Signals, Systems and Transforms
ENB354	Introduction To Systems Design
EGB241	Electromagnetics and Machines
[ENB343 replaced by EGB241 in 2016.]	
Year 3 - Semester 2	
SEB701	Work Integrated Learning 1
EGB345	Control and Dynamic Systems
[ENB348 replaced by EGB345 in 2016.]	
ENB355	Advanced Systems Design
MXB107	Introduction to Statistical Modelling

[MAB233 replaced by MXB107 in 2015.]	
OR	
Selective	
Year 4 - Semester 1	
BEB801	Project 1
ENB346	Digital Communications
ENB440	RF Techniques and Modern Applications
ENB451	Aerospace Radio and Radar Systems
Year 4 - Semester 2	
BEB802	Project 2
ENB458	Modern Control Systems
[ENB347 replaced by ENB458 in 2016.]	
ENB357	Spacecraft Dynamics and Control
ENB447	Navigation Systems For Aircraft
Aerospace Avionics Selectives	
ENB344	Industrial Electronics
ENB441	Applied Image Processing
ENB448	Signal Processing and Filtering
CAB201	Programming Principles
[INB270 replaced by CAB201 in 2015.]	
ENB457	Controls, Systems and Applications
(Note: ENB457 requires Subject Area Coordinator approval)	
CRB040	Learning Science Through Teaching
NOTE: other units subject to Subject Area Coordinator approval	

Bachelor of Engineering (Civil and Construction)

Handbook

Year	2017
QUT code	EN40
CRICOS	056529D
Duration (full-time)	4 years
OP	9
Rank	82
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Dr Brian Lee

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B
- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.0

Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Civil and Construction) must complete at least 60 days of industrial experience/ practice in an engineering construction environment as part of the Work Integrated Learning unit.

Second Majors and Minors

You will have the opportunity to undertaken either a 2nd major or two minors (see options below).

CIVIL AND CONSTRUCTION ENGINEERING Second Major and Minor Options

Second Major:

Civil Infrastructure

Minors:

Civil and Construction Engineering minor

plus

A minor from anywhere in QUT that is outside of the course (see University Wide Minors), or one of the Engineering Minors - Dynamics Minor, Materials and Design Minor, Robotics Minor or Thermofluids Minor.

Please note: The Work Integrated Learning unit (BEB701) and the project unit (BEB801) that are required for professional recognition and were once part of an applications minor have now been moved to the core of the Engineering course.

International Student Entry

International students who are interested in mid-year entry should consult the Faculty of Built Environment and Engineering Student Services section regarding the course structure to be undertaken.

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Domestic Course structure

Work Integrated Learning unit

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator as part of the Work Integrated Learning unit.

Your course

Year 1

Common first-year units include the foundations of engineering mathematics, basic principles of sustainability, electrical engineering, engineering mechanics, engineering design and engineering materials. These units provide a strong, fundamental overview of the three engineering streams: civil, electrical and mechanical.

Year 2

Apply knowledge of fundamental engineering science in design areas of timber and concrete construction. Explore theoretical aspects of geotechnical and materials engineering. Your theoretical understanding is reinforced by practical experience in our laboratories. Develop skills in construction administration and project management. Engineering

statistics mathematical skills also help your understanding of all aspects of engineering design.

Year 3
Increase your knowledge and skills in geotechnical engineering, construction management, law and other related construction practices. Explore steel construction. Continue to develop communication and organisational skills by writing reports, presenting seminars and working in small groups. Choose a second study area.

Year 4
Build on your third year to complete your second study area. Undertake a major project which will bring together all your previously mastered skills, and advance your communication skills in report writing and seminar presentation. You also complete your work integrated learning.

Second majors and minors
You will have the opportunity to undertaken either a 2nd major or two minors (see options below).

Please refer to the rules before making your selection.

Electrical engineering second major and minor options

Second major:
- Civil Infrastructure

Minors:
- Civil and Construction Engineering minor

plus
- A minor from anywhere in QUT that is outside of the course.

Please note: The Work Integrated Learning unit (BEB701) and the project unit (BEB801) that are required for professional recognition and were once part of an applications minor have now been moved to the core of the Engineering course.

International Course structure
Work Integrated Learning unit
Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator as part of the Work Integrated Learning unit.

Your course
Year 1
Common first-year units include the foundations of engineering mathematics, basic principles of sustainability, electrical engineering, engineering mechanics, engineering design and engineering materials. These units provide a strong, fundamental overview of the three engineering streams: civil, electrical and mechanical.

Year 2
Apply knowledge of fundamental engineering science in design areas of timber and concrete construction. Explore theoretical aspects of geotechnical and materials engineering. Your theoretical understanding is reinforced by practical experience in our laboratories. Develop skills in construction administration and project management. Engineering statistics mathematical skills also help your understanding of all aspects of engineering design.

Year 3
Increase your knowledge and skills in geotechnical engineering, construction management, law and other related construction practices. Explore steel construction. Continue to develop communication and organisational skills by writing reports, presenting seminars and working in small groups. Choose a second study area.

Year 4
Build on your third year to complete your second study area. Undertake a major project which will bring together all your previously mastered skills, and advance your communication skills in report writing and seminar presentation. You also complete your work integrated learning.

Second majors and minors
You will have the opportunity to undertaken either a 2nd major or two minors (see options below).

Please refer to the rules before making your selection.

Electrical engineering second major and minor options

Second major:
- Civil Infrastructure

Minors:
- Civil and Construction Engineering minor

plus
- A minor from anywhere in QUT that is outside of the course.

Please note: The Work Integrated Learning unit (BEB701) and the project unit (BEB801) that are required for professional recognition and were once part of an applications minor have now been moved to the core of the Engineering course.

Sample Structure
Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Civil and Construction Engineering Selectives

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
[ENB100 replaced by EGB100 in 2015.]	
ENB110	Engineering Statics and Materials
EGB113	Energy in Engineering Systems
[ENB130 replaced by EGB113 in 2015.]	
MZB125	Introductory Engineering Mathematics
[MAB125 replaced by MZB125 in 2015.]	
Or	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2015.]	
Year 1 - Semester 2	
EGB120	Foundations of Electrical Engineering
[ENB120 replaced by EGB120 in 2015.]	
ENB150	Introducing Engineering Design
Note: ENB150 is replaced by EGB111 (sem 1 unit) from 2015 -	
EGB111	Foundation of Engineering Design
Engineering Unit Option (ENEN-OPTIONS)	
[Engineering Unit Option replaces ENB200 in 2015. See Engineering Unit Option List.]	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2015 or MZB126 in Semester 1.]	
OR	

Bachelor of Engineering (Civil and Construction)

MXB105	Calculus of One and Two Variables
[MAB127 replaced by MXB105 in 2015.]	
Year 2 - Semester 1	
ENB270	Engineering Mechanics of Materials
EGB270	Civil Engineering Materials
[ENB273 replaced by EGB270 in 2016.]	
ENB272	Geotechnical Engineering 1
MXB107	Introduction to Statistical Modelling
[MAB233 replaced by MXB107 in 2015.]	
Year 2 - Semester 2	
EGB273	Principles of Construction
[ENB275 replaced by EGB273 in 2016.]	
ENB276	Structural Engineering 1
ENB280	Hydraulic Engineering
ENB274	Design of Environmentally Sustainable Systems
[UDB214 replaced by ENB274 in 2016.]	
Year 3 - Semester 1	
ENB277	Construction Engineering Law
ENB375	Structural Engineering 2
ENB381	Civil Engineering Construction
UXH311	Contract Administration
[UDB312 replaced by UXH311 in 2016.]	
Year 3 - Semester 2	
ENB371	Geotechnical Engineering 2
EGB476	Advanced Steel Design
[ENB373 replaced by EGB476 in 2016.]	
ENB382	Estimating in Engineering Construction
Second Major/Minor unit	
Year 4 - Semester 1	
BEB801	Project 1
ENB471	Design of Concrete Structures and Foundations
Second Major/Minor unit	
Second Major/Minor unit	
Year 4 - Semester 2	
SEB701	Work Integrated Learning 1
[BEB701 replaced by SEB701 in 2014.]	
ENB481	Civil Engineering Project Management
Second Major/Minor unit	

Selective	
Civil and Construction Engineering Selectives	
BEB802	Project 2
ENB376	Transport Engineering
ENB476	Civil Engineering Design Project

Bachelor of Engineering (Civil and Environmental)

Handbook

Year	2017
QUT code	EN40
CRICOS	056529D
Duration (full-time)	4 years
OP	9
Rank	82
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Dr Brian Lee

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B
- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.0

Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Civil and Environmental) must obtain at least 60 days of industrial experience/practice in an engineering environment as part of the Work Integrated Learning unit.

Domestic Course structure

Work Integrated Learning unit

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator as part of the Work Integrated Learning unit.

Your course

Year 1

Common first-year units include the foundations of engineering mathematics, basic principles of sustainability, electrical engineering, engineering mechanics, engineering design and engineering materials. These units provide a strong, fundamental overview of the three engineering streams: civil, electrical and mechanical.

Year 2

Apply your knowledge of fundamental engineering science in design areas of concrete construction. Explore the theoretical aspects of geotechnical, fluids and sustainable engineering. Your theoretical understanding is reinforced by practical experience in our laboratories. Engineering statistics mathematical skills also help your understanding of all aspects of engineering design.

Year 3

Increase your knowledge and skills in geotechnical and water engineering, and explore steel construction, highway and transport engineering. You are also introduced to environmental studies relating to population, resource management and environmental law. Continue to develop communication and organisational skills by writing reports, presenting seminars and working in small groups.

Year 4

Building on your third year by completing a major project which may be industry based will bring together all your previously mastered skills, and advance your communication skills in report writing and seminar presentation. You also complete work integrated learning. There are also additional electives to choose from.

International Course structure

Work Integrated Learning unit

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering

environment approved by the course coordinator as part of the Work Integrated Learning unit.

Your course

Year 1

Common first-year units include the foundations of engineering mathematics, basic principles of sustainability, electrical engineering, engineering mechanics, engineering design and engineering materials. These units provide a strong, fundamental overview of the three engineering streams: civil, electrical and mechanical.

Year 2

Apply your knowledge of fundamental engineering science in design areas of concrete construction. Explore the theoretical aspects of geotechnical, fluids and sustainable engineering. Your theoretical understanding is reinforced by practical experience in our laboratories. Engineering statistics mathematical skills also help your understanding of all aspects of engineering design.

Year 3

Increase your knowledge and skills in geotechnical and water engineering, and explore steel construction, highway and transport engineering. You are also introduced to environmental studies relating to population, resource management and environmental law. Continue to develop communication and organisational skills by writing reports, presenting seminars and working in small groups.

Year 4

Building on your third year by completing a major project which may be industry based will bring together all your previously mastered skills, and advance your communication skills in report writing and seminar presentation. You also complete work integrated learning. There are also additional electives to choose from.

Sample Structure

Semesters

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
[ENB100 replaced by EGB100 in 2015.]	
ENB110	Engineering Statics and Materials
EGB113	Energy in Engineering Systems
[ENB130 replaced by EGB113 in 2015.]	
MZB125	Introductory Engineering Mathematics
[MAB125 replaced by MZB125 in 2015.]	
or	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2015 or MZB126 in Semester 1.]	
Year 1 - Semester 2	
EGB120	Foundations of Electrical Engineering
[ENB120 replaced by EGB120 in 2015.]	
ENB150	Introducing Engineering Design
Note: ENB150 is replaced by EGB111 (sem 1 unit) from 2015 -	
EGB111	Foundation of Engineering Design
Engineering Option Unit (ENEN-OPTIONS)	
[Engineering Option Unit replaces ENB200 in 2015. See Engineering Unit Option List.]	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2015 or MZB126 in Semester 1.]	
OR	
MXB105	Calculus of One and Two Variables
[MAB127 replaced by MXB105 in 2015.]	
Year 2 - Semester 1	
ENB270	Engineering Mechanics of Materials
ENB272	Geotechnical Engineering 1
EGB270	Civil Engineering Materials
[ENB273 replaced by EGB270 in 2016.]	
MXB107	Introduction to Statistical Modelling
[MAB233 replaced by MXB107 in 2015.]	
Year 2 - Semester 2	
ENB274	Design of Environmentally Sustainable Systems
EGB273	Principles of Construction
[ENB275 replaced by EGB273 in 2016.]	
ENB276	Structural Engineering 1
ENB280	Hydraulic Engineering
Year 3 - Semester 1	
ENB372	Design and Planning of Highways
ENB378	Water Engineering
ENB383	Environmental Resource Management
EVB201	Global Environmental Issues
OR	
ERB202	Marine Geoscience
[NQB302/NQB314 alternate replaced by EVB201/ERB202 in 2014.]	
Year 3 - Semester 2	
ENB371	Geotechnical Engineering 2
ENB376	Transport Engineering
ENB380	Environmental Law and Assessment
Selective	
Year 4 - Semester 1	
BEB801	Project 1
PQB360	Global Energy Balance and Climate Change
UXB231	Planning Processes
Selective	
[UDB266 replaced by UXB231 in 2015.]	
Year 4 - Semester 2	
SEB701	Work Integrated Learning 1
[BEB701 replaced by SEB701 in 2014.]	
ENB377	Water and Waste Water Treatment Engineering
UXH331	Environmental Analysis and Planning
[UDB370 replaced by UXH331 in 2016.]	
One of:	
EVB204	Land Resource Assessment
EVB212	Soils and the Environment
ERB310	Groundwater Systems
[NQB403/NQB614 alternate replaced by EVB212/EVB204/ERB310. NQB403 replaced by EVB212/EVB204 in 2014. NQB614 replaced by ERB310 in 2015. Please note: EVB212 is a semester 1 unit.]	
Civil and Environmental Engineering Selectives	
BEB802	Project 2
ENB379	Transport Engineering and Planning Applications
ENB474	Finite Element Methods
ENB476	Civil Engineering Design Project
ENB478	Advanced Water Engineering
ENB481	Civil Engineering Project Management
ENB485	Advanced Geotechnical Engineering Practice

Bachelor of Engineering (Civil)

Handbook

Year	2017
QUT code	EN40
CRICOS	056529D
Duration (full-time)	4 years
OP	9
Rank	82
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Dr Brian Lee

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B
- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.0

Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

Second Majors and Minors

You will have the opportunity to undertaken either a 2nd major or two minors (see options below).

CIVIL ENGINEERING Second Major and Minor Options

Second Major:
Structural Engineering
Transport Engineering and Planning
Minors:
Civil Engineering minor
plus
A minor from anywhere in QUT that is outside of the course. (see University Wide Minors) or one of the Engineering Minors - Dynamics Minor, Materials and Design Minor, Robotics Minor or Thermofluids Minor.

Please note: The Work Integrated Learning unit (BEB701) and the project unit (BEB801) that are required for professional recognition and were once part of an applications minor have now been moved to the core of the Engineering course.

Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Civil) must obtain at least 60 days of industrial experience/practice in an engineering environment as part of the Work Integrated Learning unit.

Honours

EN40 students who meet GPA requirements are eligible to be awarded Bachelor of Engineering with Honours. The Honours GPA requirements are set out in MOPP – 5.2.5 Grading system – awards with honours and bachelor honours degrees.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Domestic Course structure

Work Integrated Learning unit

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator as part of the Work Integrated Learning unit.

Your course

Year 1

Common first-year units include the foundations of engineering mathematics, basic principles of sustainability, electrical engineering, engineering mechanics, engineering design and engineering materials. These units provide a strong, fundamental overview of the three engineering streams: civil, electrical and mechanical.

Year 2

Apply knowledge of fundamental engineering science in design areas of timber and concrete construction, and begin to explore theoretical aspects of geotechnical, fluids and sustainable engineering. Your theoretical understanding is reinforced by practical

experience in our laboratories. Engineering statistics mathematical skills also help your understanding of all aspects of engineering design.

Year 3
Increase your knowledge and skills in geotechnical and water engineering. Explore steel construction, highway and transport engineering. Further develop communication and organisational skills by writing reports, presenting seminars and working in small groups. Choose your second study area.

Year 4
Build on your third year to complete your second study area. Undertake a major project which will bring together all your previously mastered skills, and advance your communication skills in report writing and seminar presentation. You also complete work integrated learning.

Second majors and minors
You will have the opportunity to undertaken either a 2nd major or two minors (see options below).

Please refer to the rules before making your selection.

Civil engineering second major and minor options
Second Major:
- Structural Engineering
- Transport Engineering and Planning

Minors:
- Civil Engineering minor

plus
- A minor from anywhere in QUT that is outside of the course.

Please note: The Work Integrated Learning unit (BEB701) and the project unit (BEB801) that are required for professional recognition and were once part of an applications minor have now been moved to the core of the Engineering course.

International Course structure
Work Integrated Learning unit
Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator as part of the Work Integrated Learning unit.

Your course
Year 1
Common first-year units include the foundations of engineering mathematics, basic principles of sustainability, electrical engineering, engineering mechanics, engineering design and engineering materials. These units provide a strong, fundamental overview of the three engineering streams: civil, electrical and mechanical.

Year 2
Apply knowledge of fundamental engineering science in design areas of timber and concrete construction, and begin to explore theoretical aspects of geotechnical, fluids and sustainable engineering. Your theoretical understanding is reinforced by practical experience in our laboratories. Engineering statistics mathematical skills also help your understanding of all aspects of engineering design.

Year 3
Increase your knowledge and skills in geotechnical and water engineering. Explore steel construction, highway and transport engineering. Further develop communication and organisational skills by writing reports, presenting seminars and working in small groups. Choose your second study area.

Year 4
Build on your third year to complete your second study area. Undertake a major project which will bring together all your previously mastered skills, and advance your communication skills in report writing and seminar presentation. You also complete work integrated learning.

Second majors and minors
You will have the opportunity to undertaken either a 2nd major or two minors (see options below).

Please refer to the rules before making your selection.

Civil engineering second major and minor options
Second Major:
- Structural Engineering
- Transport Engineering and Planning

Minors:
- Civil Engineering minor

plus
- A minor from anywhere in QUT that is outside of the course.

Please note: The Work Integrated Learning unit (BEB701) and the project unit (BEB801) that are required for professional recognition and were once part of an applications minor have now been moved to the core of the Engineering course.

Sample Structure
Semesters
- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Civil Engineering Selectives

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
[ENB100 replaced by EGB100 in 2015.]	
ENB110	Engineering Statics and Materials
EGB113	Energy in Engineering Systems
[ENB130 replaced by EGB113 in 2015.]	
MZB125	Introductory Engineering Mathematics
[MAB125 replaced by MZB125 in 2015.]	
Or	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2015.]	
Year 1 - Semester 2	
EGB120	Foundations of Electrical Engineering
[ENB120 replaced by EGB120 in 2015.]	
ENB150	Introducing Engineering Design
Note: ENB150 is replaced by EGB111 (sem 1 unit) from 2015 -	
EGB111	Foundation of Engineering Design
Engineering Unit Option (ENEN-OPTIONS)	
[Engineering Unit Option replaces ENB200 in 2015. See Engineering Unit Option Lis.t]	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2015 or MZB126 in Semester 1.]	
OR	
MXB105	Calculus of One and Two Variables
[MAB127 replaced by MXB105 in 2015.]	
Year 2 - Semester 1	
ENB270	Engineering Mechanics of Materials

Bachelor of Engineering (Civil)

ENB272	Geotechnical Engineering 1
EGB270	Civil Engineering Materials
[ENB273 replaced by EGB270 in 2016.]	
MXB107	Introduction to Statistical Modelling
[MAB233 replaced by MXB107 in 2015.]	
Year 2 - Semester 2	
ENB274	Design of Environmentally Sustainable Systems
EGB273	Principles of Construction
[ENB275 replaced by EGB273 in 2016.]	
ENB276	Structural Engineering 1
ENB280	Hydraulic Engineering
Year 3 - Semester 1	
ENB372	Design and Planning of Highways
ENB375	Structural Engineering 2
ENB378	Water Engineering
Second Major/Minor unit	
Year 3 - Semester 2	
ENB371	Geotechnical Engineering 2
ENB376	Transport Engineering
ENB377	Water and Waste Water Treatment Engineering
Second Major/Minor unit	
Year 4 - Semester 1	
SEB701	Work Integrated Learning 1
[BEB701 replaced by SEB701 in 2014.]	
BEB801	Project 1
ENB471	Design of Concrete Structures and Foundations
Second Major/Minor unit	
Year 4 - Semester 2	
ENB472	Project Engineering 2
ENB476	Civil Engineering Design Project
Second Major/Minor unit	
Selective	
Civil Engineering Selectives	
BEB802	Project 2
EGB476	Advanced Steel Design
[ENB373 replaced by EGB476 in 2016.]	
ENB379	Transport Engineering and Planning Applications
ENB380	Environmental Law and Assessment
ENB383	Environmental Resource Management
ENB384	Design of Masonry Structures
ENB473	Design and Construction of Multi-Storey Buildings
ENB474	Finite Element Methods
ENB475	Structural Engineering 3
ENB477	Facade Engineering
ENB478	Advanced Water Engineering
ENB481	Civil Engineering Project Management
ENB485	Advanced Geotechnical Engineering Practice

Bachelor of Engineering (Computer and Software Systems)

Handbook

Year	2017
QUT code	EN40
CRICOS	056529D
Duration (full-time)	4 years
OP	9
Rank	82
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Dr Wayne Kelly

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4,SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B
- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.0

Course Overview

The course is a collaborative program between the areas of Engineering and Information Technology which provides students with the electrical engineering and software development skills to seek employment as software engineers. The engineering component consists of studies in electronic systems engineering while the information technology component concentrates on software engineering. These studies integrate into a cohesive course which gives a wide and advanced study of modern electronic and computing systems. This degree produces computer and electronic engineers especially suited for the development and application of electronic systems and computer systems in all areas of industry.

Career Outcomes

Software Engineers create, maintain and modify computer and software programs such as operating systems or communications software. They may also evaluate and deploy new programming tools and techniques and analyse current software products. You may work in a range of occupational environments. Software engineers can work in Engineering/IT-specific industries, as well as in other organisations requiring software engineering expertise.

Professional Recognition

Full professional accreditation from Engineers Australia and the Australian Computer Society has been given for this course.

Special course requirements

Students are required to complete 60 days approved industrial experience as part of the Work Integrated Learning unit.

Honours

EN40 students who meet GPA requirements are eligible to be awarded Bachelor of Engineering with Honours. The Honours GPA requirements are set out in MOPP – 5.2.5 Grading system – awards with honours and bachelor honours degrees.

Domestic Course structure

Work Integrated Learning unit

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator as part of the Work Integrated Learning unit.

Your course

Year 1

Common first-year units include the foundations of engineering mathematics, basic principles of sustainability, electrical engineering, engineering mechanics, engineering design and engineering materials. These units provide a strong, fundamental overview of the three engineering streams: civil, electrical and mechanical.

Year 2

You expand your knowledge of software development, and cover the fundamentals of analogue and digital electronics, and the approach to writing software to solve engineering problems. A mathematics unit is completed. Semester two expands on electronics circuit design, introduces

fundamentals of telecommunications and networking protocols, and broadens computer programming skills.

Year 3

You build on your knowledge of software engineering principles, covering topics such as formal software engineering processes with an emphasis on agile methodologies, data structures and algorithms and modern software engineering practices. Microprocessors and embedded digital systems are explored. Principles of systems engineering and project management are introduced and applied through a real-world project.

Year 4

You undertake a major project which may be industry based, in which principles of software engineering learnt to date are brought together. Study also covers embedded systems and security. You also have the opportunity to take one or two electives.

International Course structure

Work Integrated Learning unit

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator as part of the Work Integrated Learning unit.

Your course

Year 1

Common first-year units include the foundations of engineering mathematics, basic principles of sustainability, electrical engineering, engineering mechanics, engineering design and engineering materials. These units provide a strong, fundamental overview of the three engineering streams: civil, electrical and mechanical.

Year 2

You expand your knowledge of software development, and cover the fundamentals of analogue and digital electronics, and the approach to writing software to solve engineering problems. A mathematics unit is completed. Semester two expands on electronics circuit design, introduces fundamentals of telecommunications and networking protocols, and broadens computer programming skills.

Year 3

You build on your knowledge of software engineering principles, covering topics such as formal software engineering processes with an emphasis on agile methodologies, data structures and algorithms and modern software engineering practices. Microprocessors and embedded digital systems are explored. Principles of systems engineering and project management are introduced and applied through a real-world project.

Year 4

You undertake a major project which may be industry based, in which principles of software engineering learnt to date are brought together. Study also covers embedded systems and security. You also have the opportunity to take one or two electives.

Sample Structure

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Computer and Software Systems Selectives

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
[ENB100 replaced by EGB100 in 2015.]	
ENB110	Engineering Statics and Materials
EGB113	Energy in Engineering Systems
[ENB130 replaced by EGB113 in 2015.]	
MZB125	Introductory Engineering Mathematics
[MAB125 replaced by MZB125 in 2015.]	
Or	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2015 or MZB126 in Semester 1.]	
Year 1 - Semester 2	
EGB120	Foundations of Electrical Engineering
[ENB120 replaced by EGB120 in 2015.]	
ENB150	Introducing Engineering Design
Note - ENB150 is replaced by EGB111 (sem 1 unit) from 2015 -	
EGB111	Foundation of Engineering Design
Engineering Unit Option (ENEN-OPTIONS)	
[Engineering Unit Option replaces ENB200 in 2015. See Engineering Unit Option List.]	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2015 or MZB126 in Semester 1.]	
OR	
MXB105	Calculus of One and Two Variables
[MAB127 replaced by MXB105 in 2015.]	
Year 2 - Semester 1	
ENB240	Introduction To Electronics
ENB246	Engineering Problem Solving
EGB241	Electromagnetics and Machines
[ENB250 replaced by EGB241 in 2016.]	
MAB127	Mathematics for Engineering 2
OR	
MXB107	Introduction to Statistical Modelling
[MAB233 replaced by MXB107 in 2015.]	
Year 2 - Semester 2	
ENB205	Electrical and Computer Engineering
[ENB243 replaced by ENB205 or ELEC-OPTIONS in 2016.]	
IAB130	Databases
[INB210 replaced by IAB130 in 2014.]	
CAB201	Programming Principles
[INB270 replaced by CAB201 in 2015.]	
CAB202	Microprocessors and Digital Systems
[ENB244 replaced by CAB202 in 2014.]	
Year 3 - Semester 1	
ENB354	Introduction To Systems Design
IAB202	Business of Information Technology
[INB301 replaced by IAB202 in 2016.]	
CAB302	Software Development
[INB370 replaced by CAB302 in 2015.]	
CAB301	Algorithms and Complexity
[INB371 replaced by CAB301 in 2016.]	
Year 3 - Semester 2	
ENB355	Advanced Systems Design
CAB303	Networks
[INB251 replaced by CAB303 in 2015.]	
CAB403	Systems Programming
[INB365 replaced by CAB403 in 2015.]	
MXB107	Introduction to

	Statistical Modelling
[MAB233 replaced by MXB107 in 2015.]	
Or	
Selective	
Year 4 - Semester 1	
BEB801	Project 1
OR	
INB309-1	Major Project
ENB350	Real-time Computer-based Systems
SEB701	Work Integrated Learning 1
Selective	
Year 4 - Semester 2	
CAB240	Information Security
[INB255 replaced by CAB240 in 2015.]	
BEB802	Project 2
OR	
INB309-2	Major Project
CAB210	People Context and Technology
[INB272 replaced by CAB210 in 2014.]	
IFB299	IT Project Design and Development
[INB372 replaced by IFB299 in 2015.]	
Computer and Software Systems Selectives	
ENB242	Introduction To Telecommunications
[ENB242 discontinued in 2016.]	
ENB344	Industrial Electronics
ENB352	Communication Environments For Embedded Systems
INB340	Database Design
[INB340 discontinued in 2015.]	
CAB340	Cryptography
[INB355 replaced by CAB340 in 2015.]	
INB373	Web Application Development
[INB373 discontinued in 2015.]	
INB374	Enterprise Software Architecture
[INB374 discontinued in 2015.]	
CAB401	High Performance and Parallel Computing
[INB375 replaced by CAB401 in 2016.]	
INB381	Modelling and Animation Techniques
IGB381	Game Engine Technology
[INB382 replaced by IGB381 in 2017]	
CRB040	Learning Science Through Teaching
Any other unit approved by Subject Area Coordinator.	

Bachelor of Engineering (Electrical)

Handbook

Year	2017
QUT code	EN40
CRICOS	056529D
Duration (full-time)	4 years
OP	9
Rank	82
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Dr Jacob Coetzee

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B
- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.0

Professional recognition

Full professional accreditation from Engineers Australia has been given for this course.

Second Major and Minors

You will have the opportunity to undertaken either a 2nd major or two minors (see options below).

ELECTRICAL ENGINEERING Second Major and Minor Options

Second Major:
Control Systems (previously Control and Manufacturing Engineering)
Power and Energy Systems (previously Power Engineering)
Signal Processing
Telecommunications
Minors:
Electrical Engineering minor
plus
A minor from anywhere in QUT that is outside of the course (see University Wide Minors), or one of the Engineering Minors - Dynamics Minor, Materials and Design Minor, Robotics Minor or Thermofluids Minor.

Please note: The Work Integrated Learning unit (BEB701) and project units (BEB801, BEB802) that are required for professional recognition and were once part of an applications minor have now been moved to the core of the Engineering course.

Special Course Requirements

To graduate, students must complete at least 60 days industrial experience in an engineering environment as part of the Work Integrated Learning unit.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Honours

EN40 students who meet GPA requirements are eligible to be awarded Bachelor of Engineering with Honours. The Honours GPA requirements are set out in MOPP – 5.2.5 Grading system – awards with honours and bachelor honours degrees.

Domestic Course structure

Work Integrated Learning unit

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator as part of the Work Integrated Learning unit.

Your course

Year 1

Common first-year units include the foundations of engineering mathematics, basic principles of sustainability, electrical engineering, engineering mechanics, engineering design and engineering materials. These units provide a strong, fundamental overview of the three engineering streams: civil, electrical and mechanical.

Year 2

You expand your knowledge of electrical engineering, and cover the fundamentals of analogue and digital electronics, and the approach to writing software to solve

engineering problems. You are introduced to fundamental concepts in electronics, telecommunications and software design. You apply these concepts and are introduced to fundamentals of electrical engineering design.

Year 3
You increase your knowledge and skills in more advanced units in control, power systems, electronics, signal processing and telecommunications. You continue to develop your communication skills by writing assignment reports and presenting seminars. You choose a second study area.

Year 4
In your final year you complete your second study area. You undertake a major project which may be industry based and brings together all your previously mastered skills and advances your communication skills in report writing and seminar presentation. You will also complete your work integrated learning.

Second majors and minors
You will have the opportunity to undertaken either a 2nd major or two minors (see options below).

Please refer to the rules before making your selection.

Electrical engineering second major and minor options
Second major:

- Control Systems (previously Control and Manufacturing Engineering)
- Power and Energy Systems (previously Power Engineering)
- Signal Processing
- Telecommunications

Minors:

- Electrical Engineering minor

plus

- A minor from anywhere in QUT that is outside of the course.

Please note: The Work Integrated Learning unit (BEB701) and the project unit (BEB801) that are required for professional recognition and were once part of an applications minor have now been moved to the core of the Engineering course.

International Course structure
Work Integrated Learning unit
Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator as part of the Work Integrated Learning unit.

Your course
Year 1
Common first-year units include the foundations of engineering mathematics, basic principles of sustainability, electrical engineering, engineering mechanics, engineering design and engineering materials. These units provide a strong, fundamental overview of the three engineering streams: civil, electrical and mechanical.

Year 2
You expand your knowledge of electrical engineering, and cover the fundamentals of analogue and digital electronics, and the approach to writing software to solve engineering problems. You are introduced to fundamental concepts in electronics, telecommunications and software design. You apply these concepts and are introduced to fundamentals of electrical engineering design.

Year 3
You increase your knowledge and skills in more advanced units in control, power systems, electronics, signal processing and telecommunications. You continue to develop your communication skills by writing assignment reports and presenting seminars. You choose a second study area.

Year 4
In your final year you complete your second study area. You undertake a major project which may be industry based and brings together all your previously mastered skills and advances your communication skills in report writing and seminar presentation. You will also complete your work integrated learning.

Second majors and minors
You will have the opportunity to undertaken either a 2nd major or two minors (see options below).

Please refer to the rules before making your selection.

Electrical engineering second major and minor options
Second major:

- Control Systems (previously Control and Manufacturing Engineering)
- Power and Energy Systems (previously Power Engineering)
- Signal Processing
- Telecommunications

Minors:

- Electrical Engineering minor

plus

- A minor from anywhere in QUT that is outside of the course.

Please note: The Work Integrated Learning unit (BEB701) and the project unit (BEB801) that are required for professional recognition and were once part of an applications minor have now been moved to the core of the Engineering course.

Sample Structure
Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Please note:
- Year 4 - Semester 1
- Year 4 - Semester 2
- Electrical Engineering Selectives

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
[ENB100 replaced by EGB100 in 2015.]	
ENB110	Engineering Statics and Materials
EGB113	Energy in Engineering Systems
[ENB130 replaced by EGB113 in 2015.]	
MZB125	Introductory Engineering Mathematics
[MAB125 replaced by MZB125 in 2015.]	
OR	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2015.]	
Year 1 - Semester 2	
EGB120	Foundations of Electrical Engineering
[ENB120 replaced by EGB120 in 2015.]	
EGB111	Foundation of Engineering Design
Note: ENB150 is replaced by EGB111 (sem 1 unit) from 2015 -	
Engineering Unit Option (ENEN-OPTIONS)	
[Engineering Unit Option replaces ENB200 in 2015. See Engineering Unit Option List.]	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2015.]	
OR	
MXB105	Calculus of One and Two Variables

Bachelor of Engineering (Electrical)

[MAB127 replaced by MXB105 in 2015.]	
Year 2 - Semester 1	
ENB240	Introduction To Electronics
ENB246	Engineering Problem Solving
Electrical Selective Unit Option (ELEC-OPTIONS)	
[ENB250 replaced by EGB241 or ELEC-OPTIONS (if both ENB250 and ENB343 on plan) in 2016.]	
EGB240	Electronic Design
[ENB245 replaced by EGB240 in 2016.]	
Year 2 - Semester 2	
EGB242	Signal Analysis
[ENB242 replaced by EGB242 in 2016.]	
ENB205	Electrical and Computer Engineering
[ENB243 replaced by ENB205 or ELEC-OPTIONS in 2016.]	
CAB202	Microprocessors and Digital Systems
[ENB244 replaced by CAB202 in 2014.]	
MXB105	Calculus of One and Two Variables
[MAB127 replaced by MXB105 in 2015.]	
OR	
MXB107	Introduction to Statistical Modelling
[MAB233 replaced by MXB107 in 2015.]	
Year 3 - Semester 1	
ENB241	Software Systems Design
ENB301	Instrumentation and Control
ENB340	Power Systems and Machines
ENB342	Signals, Systems and Transforms
Year 3 - Semester 2	
ENB344	Industrial Electronics
ENB345	Advanced Design and Professional Practice
Second Major/Minor unit	
MXB107	Introduction to Statistical Modelling
[MAB233 replaced by MXB107 in 2015.]	
OR	
Selective	
Please note:	
Students wishing to undertake CEED based Industry Project should consult the Subject Area Coordinator to provide a program for the final year. CEED program requires that you undertake units BEB701/SEB701, BEB801 and BEB802 together in either Semester 1 or 2.	
Year 4 - Semester 1	
Second Major/Minor unit	
BEB801	Project 1
ENB346	Digital Communications

ENB346 is to be replaced by the Electrical and IT Option list [ELECIT-OPTION1]	
EGB241	Electromagnetics and Machines
[ENB343 replaced by EGB241 in 2016.]	
Year 4 - Semester 2	
Second Major/Minor unit	
Second Major/Minor unit	
SEB701	Work Integrated Learning 1
[BEB701 replaced by SEB701 in 2014.]	
BEB802	Project 2
Electrical Engineering Selectives	
EGB339	Introduction to Robotics
[ENB399 replaced by EGB339 in 2016.]	
ENB350	Real-time Computer-based Systems
ENB352	Communication Environments For Embedded Systems
ENB440	RF Techniques and Modern Applications
ENB446	Wireless Communications
ENB448	Signal Processing and Filtering
ENB452	Advanced Power Systems Analysis
ENB453	Power Equipment and Utilisation
ENB454	Power System Management
ENB455	Power Electronics
ENB456	Energy
ENB457	Controls, Systems and Applications
ENB458	Modern Control Systems
CRB040	Learning Science Through Teaching

Bachelor of Engineering (Mechanical)

Handbook

Year	2017
QUT code	EN40
CRICOS	056529D
Duration (full-time)	4 years
OP	9
Rank	82
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Professor Ted Steinberg

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B
- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.0

Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

Second Major and Minors

You will have the opportunity to undertaken either a second major or two minors (see options below).

MECHANICAL ENGINEERING Second Major and Minor Options

Second Major:
Motor Racing Engineering (previously Automotive Engineering)
Engineering Management
Heavy Mechanical Engineering

Minors:
Mechanical Engineering minor
plus
A minor from anywhere in QUT that is outside of the course. (see University Wide Minors)

Please note: The Work Integrated Learning unit (BEB701) and project units (BEB801, BEB802) that are required for professional recognition and were once part of an applications minor have now been moved to the core of the Engineering course.

Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Mechanical) must complete at least 60 days of industrial experience/practice in an engineering environment as part of the Work Integrated Learning unit.

Honours

EN40 students who meet GPA requirements are eligible to be awarded Bachelor of Engineering with Honours. The Honours GPA requirements are set out in MOPP – 5.2.5 Grading system – awards with honours and bachelor honours degrees.

Domestic Course structure

Work Integrated Learning unit

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator as part of the Work Integrated Learning unit.

Your course

Year 1

Common first-year units include the foundations of engineering mathematics, basic principles of sustainability, electrical engineering, engineering mechanics, engineering design and engineering materials. These units provide a strong, fundamental overview of the three engineering streams: civil, electrical and mechanical.

Year 2

You build your knowledge of engineering science in areas such as fundamentals of design, dynamics, fluid mechanics, manufacturing and mathematics. You also gain practical experience in our laboratories and are introduced to computational fluid dynamics (CFD). Your communication skills will also be advanced with an introduction to engineering drawing and assignment report writing.

Year 3
You increase your knowledge and skills in a number of professional areas, including design, where you are introduced to solids modelling, materials and manufacture, instrumentation and control, dynamics, thermodynamics and stress analysis. You continue to develop your communication skills by writing assignment reports and presenting seminars. You choose a second study area.

Year 4
In your final year you complete your second study area. You undertake a major project which will bring together all your previously mastered skills, and advance your communication skills in report writing and seminar presentation. You will also undertake your work integrated learning.

Second majors and minors
You will have the opportunity to undertaken either a 2nd major or two minors (see options below).

Please refer to the rules before making your selection.

Mechanical engineering second major and minor options
Second major:

- Motor Racing Engineering (previously Automotive Engineering)
- Engineering Management
- Heavy Mechanical Engineering

Minors:

- Mechanical Engineering minor

plus

- A minor from anywhere in QUT that is outside of the course.

Please note: The Work Integrated Learning unit (BEB701) and the project unit (BEB801) that are required for professional recognition and were once part of an applications minor have now been moved to the core of the Engineering course.

International Course structure
Work Integrated Learning unit
Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator as part of the Work Integrated Learning unit.

Your course
Year 1
Common first-year units include the foundations of engineering mathematics, basic principles of sustainability, electrical engineering, engineering mechanics, engineering design and engineering materials. These units provide a strong, fundamental overview of the three engineering streams: civil, electrical and mechanical.

Year 2
You build your knowledge of engineering science in areas such as fundamentals of design, dynamics, fluid mechanics, manufacturing and mathematics. You also gain practical experience in our laboratories and are introduced to computational fluid dynamics (CFD). Your communication skills will also be advanced with an introduction to engineering drawing and assignment report writing.

Year 3
You increase your knowledge and skills in a number of professional areas, including design, where you are introduced to solids modelling, materials and manufacture, instrumentation and control, dynamics, thermodynamics and stress analysis. You continue to develop your communication skills by writing assignment reports and presenting seminars. You choose a second study area.

Year 4
In your final year you complete your second study area. You undertake a major project which will bring together all your previously mastered skills, and advance your communication skills in report writing and seminar presentation. You will also undertake your work integrated learning.

Second majors and minors
You will have the opportunity to undertaken either a 2nd major or two minors (see options below).

Please refer to the rules before making your selection.

Mechanical engineering second major and minor options
Second major:

- Motor Racing Engineering (previously Automotive Engineering)
- Engineering Management
- Heavy Mechanical Engineering

Minors:

- Mechanical Engineering minor

plus

- A minor from anywhere in QUT that is outside of the course.

Please note: The Work Integrated Learning unit (BEB701) and the project unit (BEB801) that are required for professional recognition and were once part of an applications minor have now been moved to the core of the Engineering course.

Sample Structure
Semesters

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
[ENB100 replaced by EGB100 in 2015.]	
ENB110	Engineering Statics and Materials
EGB113	Energy in Engineering Systems
[ENB130 replaced by EGB113 in 2015.]	
MZB125	Introductory Engineering Mathematics
[MAB125 replaced by MZB125 in 2015.]	
OR	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2015 or MZB126 in Semester 1.]	
Year 1 - Semester 2	
EGB120	Foundations of Electrical Engineering
[ENB120 replaced by EGB120 in 2015.]	
EGB111	Foundation of Engineering Design
Note: ENB150 is replaced by EGB111 (sem 1 unit) from 2015 -	
Engineering Unit Option (ENEN-OPTIONS)	
[Engineering Unit Option replaces ENB200 in 2015. See Engineering Unit Option List.]	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2015 or MZB126 in Semester 1.]	
OR	

Bachelor of Engineering (Mechanical)

MXB105	Calculus of One and Two Variables
[MAB127 replaced by MXB105 in 2015.]	
Year 2 - Semester 1	
EGB210	Fundamentals of Mechanical Design
[ENB215 replaced by EGB210 in 2016.]	
EGB314	Strength of Materials
[ENB212 replaced by EGB314 in 2016.]	
EGB214	Materials and Manufacturing
[ENB231 replaced by EGB214 in 2016.]	
MXB105	Calculus of One and Two Variables
[MAB127 replaced by MXB105 in 2015.]	
OR	
MXB107	Introduction to Statistical Modelling
[MAB233 replaced by MXB107 in 2015.]	
Year 2 - Semester 2	
ENB205	Electrical and Computer Engineering
EGB211	Dynamics
[ENB211 replaced by EGB211 in 2016.]	
EGB323	Fluid Mechanics
[ENB221 replaced by EGB323 in 2016.]	
ENB331	Materials and Manufacturing 2
Please note:	
Students wishing to undertake CEED based Industry Project should consult the Subject Area Coordinator to provide a program for the final 2 years. CEED program requires that you undertake units BEB701/SEB701, BEB801 and BEB802 together in either Semester 1 or 2.	
Year 3 - Semester 1	
ENB222	Thermodynamics 1
ENB311	Stress Analysis
ENB312	Dynamics of Machinery
ENB316	Design of Machine Elements
Year 3 - Semester 2	
ENB313	Automatic Control
ENB317	Design and Maintenance of Machinery
ENB321	Fluids Dynamics
MXB107	Introduction to Statistical Modelling
[MAB233 replaced by MXB107 in 2015.]	
OR	
Selective	
Year 4 - Semester 1	
BEB801	Project 1
ENB421	Thermodynamics 2
Second Major/Minor unit	
Second Major/Minor unit	
Year 4 - Semester 2	

SEB701	Work Integrated Learning 1
[BEB701 replaced by SEB701 in 2014.]	
BEB802	Project 2
Second Major/Minor unit	
Second Major/Minor unit	
Mechanical Engineering Selectives	
ENB314	Industrial Noise and Vibration
ENB333	Operations Management
EGB336	Lean Manufacturing
[ENB336 replaced by EGB336 in 2016.]	
EGB339	Introduction to Robotics
[ENB339 replaced by EGB339 in 2016.]	
EGB422	Energy Management
[ENB422 replaced by EGB422 in 2016.]	
EGB423	Heating, Ventilation and Air Conditioning
[ENB423 replaced by EGB423 in 2016.]	
ENB432	Engineering Asset Management and Maintenance
[ENB432 replaced by EGB432 in 2016.]	
EGB360	Plant and Process Design
[ENB433 replaced by EGB360 in 2016.]	
EGB434	Tribology
[ENB434 replaced by EGB434 in 2016.]	
ENB435	Computer Integrated Manufacturing
ENB477	Facade Engineering
CRB040	Learning Science Through Teaching

Bachelor of Engineering (Mechatronics)

Handbook

Year	2017
QUT code	EN40
CRICOS	056529D
Duration (full-time)	4 years
OP	9
Rank	82
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Associate Professor Jason Ford

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B
- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.0

Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

Second Majors and Minors

You will have the opportunity to undertaken either a 2nd major or two minors (see options below).

MECHATRONICS Second Major and Minor Options

Second Major:
Manufacturing
Robotics
Minors:
Robotics Minor
plus
A minor from anywhere in QUT that is outside of the course. (see University Wide Minors)

Please note: The Work Integrated Learning unit (BEB701) and project units (BEB801, BEB802) that are required for professional recognition and were once part of an applications minor have now been moved to the core of the Engineering course.

Honours

EN40 students who meet GPA requirements are eligible to be awarded Bachelor of Engineering with Honours. The Honours GPA requirements are set out in MOPP – 5.2.5 Grading system – awards with honours and bachelor honours degrees.

Special Course Requirements

Students must obtain at least 60 days of industrial work experience in an engineering environment as part of the Work Integrated Learning unit.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Domestic Course structure

Work Integrated Learning unit

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator as part of the Work Integrated Learning unit.

Your course

Year 1

Common first-year units include the foundations of engineering mathematics, basic principles of sustainability, electrical engineering, engineering mechanics, engineering design and engineering materials. These units provide a strong, fundamental overview of the three engineering streams: civil, electrical and mechanical.

Year 2

Build your knowledge of fundamental engineering science in areas such as design, dynamics, fluid mechanics, manufacturing and mathematics. You are introduced to technical computing which is a specialist requirement for information technology. You gain practical experience in our laboratories and are introduced to computational fluid dynamics (CFD). Your communication skills are advanced with an introduction to engineering drawing and report writing.

Year 3
You increase your knowledge and skills in professional areas including design and thermodynamics. You are exposed to specialist areas such as electronics, microprocessors and mechatronics, operations management and machines. Throughout this level you continue to develop your communication skills by writing assignment reports and presenting seminars.

Year 4
In your final year you further your skills in specialised areas such as mechatronic systems design, instrumentation and control and computer intelligence. You also undertake an industry-based project which will bring together all your previously mastered skills, and advance your communication skills in report writing and seminar presentation. You will also complete your work integrated learning.

Second majors and minors
You will have the opportunity to undertaken either a 2nd major or two minors (see options below).

Please refer to the rules before making your selection.

Mechatronics engineering second major and minor options
Second major:
- Manufacturing
- Robotics

Minors:
- Robotics minor

plus
- A minor from anywhere in QUT that is outside of the course.

Please note: The Work Integrated Learning unit (BEB701) and the project unit (BEB801) that are required for professional recognition and were once part of an applications minor have now been moved to the core of the Engineering course.

International Course structure
Work Integrated Learning unit
Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator as part of the Work Integrated Learning unit.

Your course
Year 1
Common first-year units include the foundations of engineering mathematics, basic principles of sustainability, electrical engineering, engineering mechanics, engineering design and engineering materials. These units provide a strong, fundamental overview of the three engineering streams: civil, electrical and mechanical.

Year 2
Build your knowledge of fundamental engineering science in areas such as design, dynamics, fluid mechanics, manufacturing and mathematics. You are introduced to technical computing which is a specialist requirement for information technology. You gain practical experience in our laboratories and are introduced to computational fluid dynamics (CFD). Your communication skills are advanced with an introduction to engineering drawing and report writing.

Year 3
You increase your knowledge and skills in professional areas including design and thermodynamics. You are exposed to specialist areas such as electronics, microprocessors and mechatronics, operations management and machines. Throughout this level you continue to develop your communication skills by writing assignment reports and presenting seminars.

Year 4
In your final year you further your skills in specialised areas such as mechatronic systems design, instrumentation and control and computer intelligence. You also undertake an industry-based project which will bring together all your previously mastered skills, and advance your communication skills in report writing and seminar presentation. You will also complete your work integrated learning.

Second majors and minors
You will have the opportunity to undertaken either a 2nd major or two minors (see options below).

Please refer to the rules before making your selection.

Mechatronics engineering second major and minor options
Second major:
- Manufacturing
- Robotics

Minors:
- Robotics minor

plus
- A minor from anywhere in QUT that is outside of the course.

Please note: The Work Integrated Learning unit (BEB701) and the project unit (BEB801) that are required for professional recognition and were once part of an applications minor have now been moved to the core of the Engineering course.

Sample Structure
Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Manufacturing 2nd Major Selectives

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
[ENB100 replaced by EGB100 in 2015.]	
EGB121	Engineering Mechanics
[ENB110 replaced by EGB121 in SEM-2 2015.]	
EGB113	Energy in Engineering Systems
[ENB130 replaced by EGB113 in 2015.]	
MZB125	Introductory Engineering Mathematics
[MAB125 is replaced by MZB125 in 2015.]	
OR	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2015.]	
Year 1 - Semester 2	
EGB120	Foundations of Electrical Engineering
[ENB120 replaced by EGB120 in 2015.]	
EGB111	Foundation of Engineering Design
[ENB150 replaced by EGB111 in 2015.]	
Engineering Unit Option (ENEN-OPTIONS)	
[Engineering Unit Option replaces ENB200 in 2015. See Engineering Unit Option List]	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2015.]	
OR	

Bachelor of Engineering (Mechatronics)

MXB105	Calculus of One and Two Variables
[MAB127 replaced by MXB105 in 2015.]	
Year 2 - Semester 1	
EGB211	Dynamics
[ENB211 replaced by EGB211 in 2016.]	
EGB220	Mechatronics Design 1
[ENB229 replaced by EGB220 in 2016.]	
ENB240	Introduction To Electronics
MXB105	Calculus of One and Two Variables
[MAB127 replaced by MXB105 in 2015.]	
OR	
MXB107	Introduction to Statistical Modelling
[MAB233 replaced by MXB107 in 2015.]	
Year 2 - Semester 2	
EGB210	Fundamentals of Mechanical Design
[ENB215 replaced by EGB210 in 2016.]	
PLEASE NOTE: EGB210 is a SEM-1 unit.	
ENB205	Electrical and Computer Engineering
[ENB243 replaced by ENB205 or ELEC-OPTIONS in 2016.]	
CAB202	Microprocessors and Digital Systems
[ENB244 replaced by CAB202 in 2014.]	
EGB339	Introduction to Robotics
[ENB339 replaced by EGB339 in 2016.]	
OR	
MXB107	Introduction to Statistical Modelling
[MAB233 replaced by MXB107 in 2015]	
Year 3 - Semester 1	
EGB314	Strength of Materials
[ENB212 replaced by EGB314 in 2016.]	
EGB214	Materials and Manufacturing
[ENB231 replaced by EGB214 in 2016.]	
ENB246	Engineering Problem Solving
ENB301	Instrumentation and Control
Year 3 - Semester 2	
EGB323	Fluid Mechanics
[ENB221 replaced by EGB323 in 2016.]	
ENB329	Mechatronics Project 2
ENB331	Materials and Manufacturing 2
EGB339	Introduction to Robotics
[ENB339 replaced by EGB339 in 2016.]	
OR	
Selective	
Year 4 - Semester 1	
BEB801	Project 1
ENB334	Design for Manufacturing
ENB435	Computer Integrated Manufacturing
Manufacturing Selective	
Year 4 - Semester 2	
SEB701	Work Integrated Learning 1
[BEB701 replaced by SEB701 in 2014.]	
BEB802	Project 2
ENB333	Operations Management
ENB436	Mechatronics System Design
Manufacturing 2nd Major Selectives	
Semester 1:	
ENB222	Thermodynamics 1
ENB350	Real-time Computer-based Systems
ENB439	Advanced Robotics
CAB320	Artificial Intelligence
[INB860 replaced by CAB320 in 2015.]	
Semester 2:	
ENB352	Communication Environments For Embedded Systems
ENB457	Controls, Systems and Applications
ENB458	Modern Control Systems
CAB201	Programming Principles
[INB270 replaced by CAB201 in 2015.]	
CRB040	Learning Science Through Teaching

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Robotics 2nd Major Selectives - Depth Set
- Robotics 2nd Major Selectives - Breadth Set

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
[ENB100 replaced by EGB100 in 2015.]	
EGB121	Engineering Mechanics
[ENB110 replaced by EGB121 in SEM-2 2015.]	
EGB113	Energy in Engineering Systems
[ENB130 replaced by EGB113 in 2015.]	
MZB125	Introductory Engineering Mathematics
[MAB125 replaced by MZB125 in 2015.]	
OR	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2015.]	
Year 1 - Semester 2	
EGB120	Foundations of Electrical Engineering
[ENB120 replaced by EGB120 in 2015.]	
EGB111	Foundation of Engineering Design
[ENB150 replaced by EGB111 in 2015.]	
Engineering Unit Option (ENEN-OPTIONS)	
[Engineering Unit Option replaces ENB200 in 2015. See Engineering Unit Option List.]	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2015.]	
OR	
MXB105	Calculus of One and Two Variables
[MAB127 replaced by MXB105 in SEM-2 2015.]	
Year 2 - Semester 1	
EGB211	Dynamics
[ENB211 replaced by EGB211 in 2016.]	
EGB220	Mechatronics Design 1
[ENB229 replaced by EGB220 in 2016.]	
ENB240	Introduction To Electronics
MXB105	Calculus of One and Two Variables
[MAB127 replaced by MXB105 in SEM-2 2015.]	
OR	
MXB107	Introduction to Statistical Modelling
[MAB233 replaced by MXB107 in SEM-2 2015.]	
Year 2 - Semester 2	
EGB210	Fundamentals of Mechanical Design
[ENB215 replaced by EGB210 in 2016.]	
PLEASE NOTE: EGB210 is a SEM-1 unit.	
ENB205	Electrical and Computer Engineering
[ENB243 replaced by ENB205 or ELEC-OPTIONS in 2016.]	

Bachelor of Engineering (Mechatronics)

CAB202	Microprocessors and Digital Systems
[ENB244 replaced by CAB202 in 2014.]	
EGB339	Introduction to Robotics
[ENB339 replaced by EGB339 in 2016.]	
OR	
MXB107	Introduction to Statistical Modelling
[MAB233 replaced by MXB107 in SEM-2 2015.]	
Year 3 - Semester 1	
EGB314	Strength of Materials
[ENB212 replaced by EGB314 in 2016.]	
EGB214	Materials and Manufacturing
[ENB231 replaced by EGB214 in 2016.]	
ENB246	Engineering Problem Solving
ENB301	Instrumentation and Control
Year 3 - Semester 2	
ENB329	Mechatronics Project 2
ENB458	Modern Control Systems
EGB339	Introduction to Robotics
[ENB339 replaced by EGB339 in 2016.]	
OR	
Breadth Selective	
Depth Selective	
Year 4 - Semester 1	
BEB801	Project 1
ENB439	Advanced Robotics
Two Selectives from Depth or Breadth Set	
Year 4 - Semester 2	
SEB701	Work Integrated Learning 1
[BEB701 replaced by SEB701 in 2014.]	
BEB802	Project 2
Two Selectives from Depth or Breadth Set	
Robotics 2nd Major Selectives - Depth Set	
ENB312	Dynamics of Machinery
ENB316	Design of Machine Elements
ENB342	Signals, Systems and Transforms
ENB344	Industrial Electronics
ENB352	Communication Environments For Embedded Systems
ENB441	Applied Image Processing
[ENB441 discontinued 31/12/2015,]	
ENB448	Signal Processing and Filtering
ENB457	Controls, Systems and Applications
CAB320	Artificial Intelligence
[INB860 replaced by CAB320 in 2015.]	
Robotics 2nd Major Selectives - Breadth Set	
EGB323	Fluid Mechanics
[ENB221 replaced by EGB323 in 2016.]	
ENB222	Thermodynamics 1
ENB241	Software Systems Design
EGB242	Signal Analysis
[ENB242 replaced by EGB242 in 2016.]	
EGB415	Motor Racing Vehicle Design
[ENB315 replaced by EGB415 in 2016.]	
ENB350	Real-time Computer-based Systems
IAB130	Databases

Bachelor of Engineering (Medical)

Handbook

Year	2017
QUT code	EN40
CRICOS	056529D
Duration (full-time)	4 years
OP	9
Rank	82
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Dr Devakar Epari

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B
- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.0

Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

Special Course Requirements

Students must obtain at least 60 days of industrial employment in an engineering environment as part of the Work Integrated Learning unit. Half of this experience must be in an industry related to Biomedical Engineering.

Honours

EN40 students who meet GPA requirements are eligible to be awarded Bachelor of Engineering with Honours. The Honours GPA requirements are set out in MOPP – 5.2.5 Grading system – awards with honours and bachelor honours degrees.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Domestic Course structure

Work Integrated Learning unit

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator as part of the Work Integrated Learning unit.

Your course

Year 1

Common first-year units include the foundations of engineering mathematics, basic principles of sustainability, electrical engineering, engineering mechanics, engineering design and engineering materials. These units provide a strong, fundamental overview of the three engineering streams: civil, electrical and mechanical.

Year 2

You build your knowledge of engineering science in areas such as fundamentals of design, dynamics, computer technology, fluid mechanics and mathematics. You are introduced to human anatomy which is a specialist requirement for medical engineering. You gain practical experience in our laboratories and are introduced to computational fluid dynamics (CFD). Your communication skills are advanced with an introduction to engineering drawing and assignment report writing.

Year 3

You increase your knowledge and skills in professional areas including thermodynamics and stress analysis. You are exposed to specialist areas such as biomedical engineering design, biofluids, biomaterials and human physiology. Throughout this level you will continue to develop your communication skills by writing assignment reports and presenting seminars. You also gain further professional learning in ethics and legislation.

Year 4

In your final year you further your knowledge in specialised areas such as modelling and simulation, biomedical instrumentation, instrumentation and control, and engineering asset

management. You undertake a major project which brings together all your previously mastered skills, and advance your communication skills in report writing and seminar presentation. You will also complete your work integrated learning.

Minors

For professional recognition you will undertake an applications minor which consists of a workplace intergrated learning unit, a project unit and two specialised engineering units.

International Course structure

Work Integrated Learning unit

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator as part of the Work Integrated Learning unit.

Your course

Year 1

Common first-year units include the foundations of engineering mathematics, basic principles of sustainability, electrical engineering, engineering mechanics, engineering design and engineering materials. These units provide a strong, fundamental overview of the three engineering streams: civil, electrical and mechanical.

Year 2

You build your knowledge of engineering science in areas such as fundamentals of design, dynamics, computer technology, fluid mechanics and mathematics. You are introduced to human anatomy which is a specialist requirement for medical engineering. You gain practical experience in our laboratories and are introduced to computational fluid dynamics (CFD). Your communication skills are advanced with an introduction to engineering drawing and assignment report writing.

Year 3

You increase your knowledge and skills in professional areas including thermodynamics and stress analysis. You are exposed to specialist areas such as biomedical engineering design, biofluids, biomaterials and human physiology. Throughout this level you will continue to develop your communication skills by writing assignment reports and presenting seminars. You also gain further professional learning in ethics and legislation.

Year 4

In your final year you further your knowledge in specialised areas such as modelling and simulation, biomedical instrumentation, instrumentation and control, and engineering asset management. You undertake a major project which brings together all your previously mastered skills, and advance your communication skills in report writing and seminar presentation. You will also complete your work integrated learning.

Minors

For professional recognition you will undertake an applications minor which consists of a workplace intergrated learning unit, a project unit and two specialised engineering units.

Sample Structure

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Medical Engineering Selectives

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
[ENB100 replaced by EGB100 in 2015.]	
ENB110	Engineering Statics and Materials
EGB113	Energy in Engineering Systems
[ENB130 replaced by EGB113 in 2015.]	
MZB125	Introductory Engineering Mathematics
[MAB125 replaced by MZB125 in 2015.]	
OR	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2015 or MZB126 in Semester 1.]	
Year 1 - Semester 2	
EGB120	Foundations of Electrical Engineering
[ENB120 replaced by EGB120 in 2015.]	
EGB111	Foundation of Engineering Design
Note: ENB150 is replaced by EGB111 (sem 1 unit) from 2015 -	
Engineering Unit Option (ENEN-OPTIONS)	
[Engineering Unit Option replaces ENB200 in 2015. See Engineering Unit Option List.]	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2015 or MZB126 in Semester 1.]	
OR	
MXB105	Calculus of One and Two Variables
[MAB127 replaced by MXB105 in 2015.]	
Year 2 - Semester 1	
[ENB215 replaced by EGB210 in 2016.]	
EGB210	Fundamentals of Mechanical Design
EGB314	Strength of Materials
[ENB212 replaced by EGB314 in 2016.]	
LSB131	Anatomy
MXB105	Calculus of One and Two Variables
[MAB127 replaced by MXB105 in 2015.]	
OR	
MXB107	Introduction to Statistical Modelling
[MAB233 replaced by MXB107 in 2015.]	
Year 2 - Semester 2	
ENB205	Electrical and Computer Engineering
EGB211	Dynamics
[ENB211 replaced by EGB211 in 2016.]	
[ENB221 replaced by EGB323 in 2016.]	
EGB323	Fluid Mechanics
LSB231	Physiology
Year 3 - Semester 1	
ENB222	Thermodynamics 1
ENB311	Stress Analysis
ENB319	Biomechanical Engineering Design
EGB214	Materials and Manufacturing
[ENB231 replaced by EGB214 in 2016.]	
Year 3 - Semester 2	
ENB313	Automatic Control
ENB318	Biomechanical Engineering Systems
ENB338	Biomaterials
ENB322	Biofluids
Year 4 - Semester 1	
BEB801	Project 1
ENB335	Modelling and Simulation for Medical Engineers
EGB432	Asset Management and Maintenance
[ENB432 replaced by EGB432 in 2016.]	
MXB107	Introduction to

	Statistical Modelling
[MAB233 replaced by MXB107 in 2015.]	
OR	
Selective	
Year 4 - Semester 2	
SEB701	Work Integrated Learning 1
[BEB701 replaced by SEB701 in 2014.]	
BEB802	Project 2
ENB437	Health Legislation in the Medical Environment
PCB605	Biomedical Instrumentation
Medical Engineering Selectives	
BSB115	Management
MXB103	Introductory Computational Mathematics
[MAB220 replaced by MXB103 in 2014.]	
MAB422	Mathematical Modelling
[MAB422 discontinued in 2015.]	
PCB593	Digital Image Processing
PCN211	Physics of Medical Imaging
PYB100	Foundation Psychology
SCB384	Forensic Sciences - From Crime Scene to Court
[SCB384 discontinued in 2014.]	
CRB040	Learning Science Through Teaching

Bachelor of Engineering (Process Engineering)

Handbook

Year	2017
QUT code	EN40
CRICOS	056529D
Duration (full-time)	4 years
OP	9
Rank	82
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Associate Professor Robert Speight

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B
- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.0

Course Overview

A Process Engineer develops and optimises industrial processes to make the huge range of products on which modern society depends. Process engineering involves refining, renewing or modifying raw materials. In today's world, processing efficiently, sustainably and with a low energy footprint is key to business operations and profitability.

Career Outcomes

The degree will develop responsible professionals with a sense of social awareness, leadership skills and problem solving. QUT has very strong industry links in Process Engineering and has current practicing Process and Chemical Engineers teaching into this course which will provide opportunities for site visits, work integrated learning and research projects.

A degree in Process Engineering will equip students for a wide variety of employment. Process Engineers are predominantly employed in the following sectors/sub-sectors:

- Oil and Gas Production
- Mining
- Refining
- Mineral Processing
- Chemical and Petrochemicals
- Metal Production
- Food Processing
- Electricity Supply
- Pharmaceuticals
- Bio-process industries such as Biofuels and Waste Product Processing

Professional membership

Graduates of this course will be eligible to apply for full professional membership of Engineers Australia

Honours

EN40 students who meet GPA requirements are eligible to be awarded Bachelor of Engineering with Honours. The Honours GPA requirements are set out in MOPP – 5.2.5 Grading system – awards with honours and bachelor honours degrees.

Minors

You will have the opportunity to undertake a minor from anywhere in QUT that is outside of the course (see University Wide Minors) or one of the Engineering Minors - Dynamics Minor, Materials and Design Minor, Robotics Minor or Thermofluids Minor.

Domestic Course structure

Work Integrated Learning unit

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator as part of the Work Integrated Learning unit.

International Course structure

Work Integrated Learning unit

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator as part of the Work Integrated Learning unit.

Bachelor of Engineering (Process Engineering)

Sample Structure

Semesters

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
[ENB100 replaced by EGB100 in 2015.]	
EGB121	Engineering Mechanics
[ENB110 replaced by EGB121 in SEM-2 2015.]	
EGB113	Energy in Engineering Systems
[ENB130 replaced by EGB113 in 2015.]	
MZB125	Introductory Engineering Mathematics
[MAB125 replaced by MZB125 in 2015.]	
OR	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2015.]	
Year 1 - Semester 2	
EGB120	Foundations of Electrical Engineering
[ENB120 replaced by EGB120 in 2015]	
EGB111	Foundation of Engineering Design
[ENB150 replaced by EGB111 in 2015.]	
Engineering Unit Option (ENEN-OPTIONS)	
[Engineering Unit Option replaces ENB200 in 2015. See Engineering Unit Option List.]	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2015.]	
OR	
MXB105	Calculus of One and Two Variables
[MAB127 replaced by MXB105 in SEM-2 2015.]	
Year 2 - Semester 1	
CVB221	Unit Operations
ENB222	Thermodynamics 1
EGB214	Materials and Manufacturing
[ENB231 replaced by EGB214 in 2016..]	
MXB107	Introduction to Statistical Modelling
[MAB233 replaced by MXB107 in 2015]	
Year 2 - Semester 2	
CVB101	General Chemistry
CVB211	Industrial Chemistry
EGB323	Fluid Mechanics
[ENB221 replaced by EGB323 in 2016.]	
EGB260	Operations Management and Process Economics
[ENB260 replaced by EGB260 in 2016.]	
PLEASE NOTE: EGB260 is a SEM-1 unit.	
Year 3 - Semester 1	
ENB360	Heat and Mass Transfer Operations
ENB362	Bulk Materials Handling
EGB363	Safety and Environmental Management
[ENB363 replaced by EGB363 in 2016.]	
Minor unit	
Year 3 - Semester 2	
CVB102	Chemical Structure and Reactivity
ENB313	Automatic Control
ENB361	Minerals and Minerals Processing
Minor unit	
Year 4 - Semester 1	
BEB801	Project 1
ENB460	Advanced Process Modelling
ENB461	Advanced Process Control Systems
Minor unit	
Year 4 - Semester 2	
SEB701	Work Integrated Learning 1
[BEB701 replaced by SEB701 in 2014.]	
BEB802	Project 2
EGB360	Plant and Process Design
[ENB433 replaced by EGB360 in 2016.]	
Minor unit	

Bachelor of Engineering (Software Engineering)

Handbook

Year	2017
QUT code	EN40
CRICOS	056529D
Duration (full-time)	4 years
Campus	Gardens Point
Total credit points	384
Credit points full-time sem.	48
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Dr Wayne Kelly

International Subject prerequisites

- Maths B
- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.0

Course Overview

The course is a collaborative program between the areas of Engineering and Information Technology which provides students with the electrical engineering and software development skills to seek employment as software engineers. The engineering component consists of studies in electronic systems engineering while the information technology component concentrates on software engineering. These studies integrate into a cohesive course which gives a wide and advanced study of modern electronic and computing systems. This degree produces computer and electronic engineers especially suited for the development and application of electronic systems and computer systems in all areas of industry.

Career Outcomes

Software Engineers create, maintain and modify computer and software programs such as operating systems or communications software. They may also evaluate and deploy new programming tools and techniques and analyse current software products. You may work in a range of occupational environments. Software engineers can work in Engineering/IT-specific industries, as well as in other organisations requiring software engineering expertise.

Professional Recognition

Full professional accreditation from Engineers Australia and the Australian Computer Society has been given for this course.

Minors

For professional recognition you will undertake an Applications minor which consists of a Work Place Integrated Learning unit, a project unit and two specialised engineering units.

Special course requirements

Students are required to complete 60 days approved industrial experience as part of the Work Integrated Learning unit.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Domestic Course structure

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator as part of the Work Integrated Learning unit.

Minors

For professional recognition you will undertake an Applications minor which consists of a Work Place Integrated Learning unit, a project unit and two specialised engineering units.

International Course structure

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator as part of the Work Integrated Learning unit.

Bachelor of Information Technology

Handbook

Year	2017
QUT code	IN01
CRICOS	012656E
Duration (full-time)	3 years
Duration (part-time domestic)	6 years
OP	11
Rank	76
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $28300 per year full-time (96 credit points)
Total credit points	288
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiry - ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths A, B or C
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

International Subject prerequisites

- Maths A, B or C

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Overview

This degree equips you to build and apply creative, innovative IT solutions across diverse industries. A hands-on, real world based curriculum gives you the opportunity to explore a wide range of areas within IT, and gain deep understanding within your chosen area specialty, such as networking, software development, data warehousing, business processes, information management, web technologies, or digital societies. You experience an innovative, hands-on approach to learning through projects where you develop IT systems. You will be able to gain entrepreneurial skills if you wish to learn how to develop an idea into a commercial opportunity. You learn to harness your creativity and people skills to maximise the impact of your technical know-how relative to the IT marketplace. It positions you for a challenging and rewarding career within the global economy.

Course Design

Requirements for the completion of IN01 Bachelor of Information Technology(Study Area A) are as follows:

(a) 72 credit points (6 units) of IT Core units, which includes 24 credit points (2 units) of Option Units selected from an approved list.
(b) 120 credit points (10 units) of Major Core units
(c) 96 credit points of complementary studies comprising of either a Second Major (8 unit set); or two Minors (4 unit set each); or one Minor (4 unit set) plus 4 elective units.

Majors

Choose your primary area of study, also known as your major, in the following specialisation areas: Information Systems or Computer Science.

Options List

The Bachelor of Information Technology Core Unit Options List comprises a range of units from which you choose to undertake two (2). You are able to undertake these options in any semester. The options include introductory units from a wide variety of disciplines offered at QUT.

Complementary Studies

Students may elect to undertake a Second Major (8 unit set), or two Minors (4 unit set each), or one Minor (4 unit set) plus 4 elective units.

Second Major:

A choice of one second major from:

• Technology Innovation and Design
• Computational and Simulation Science

Minors:

A choice of two minors from either Faculty or University Wide Options.

Professional Recognition

Professional recognition can be found in the individual majors of the Bachelor of Information Technology (IN01).

Pathways for Further Study

The QUT Bachelor of Information Technology is located at Level 7 of the Australian Qualifications Framework (AQF). Eligible graduates may continue their studies in these disciplines with an additional honours year in (IN10) Bachelor of Information Technology (Honours).

Bachelor of Information Technology (Computer Science)

Handbook

Year	2017
QUT code	IN01
CRICOS	012656E
Duration (full-time)	3 years
Duration (part-time domestic)	6 years
OP	11
Rank	76
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $28300 per year full-time (96 credit points)
Total credit points	288
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiry - ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Dr Guido Zuccon +61 7 3138 8822 sef.enquiry@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths A, B or C
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

International Subject prerequisites

- Maths A, B or C

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Overview

Computer science is the scientific and practical approach to computer-based system design, development and operation. Its subfields range from the fundamental principles of computation through to tools and techniques for IT system development and evaluation. It includes identifying and solving systems design issues associated with achieving critical properties such as correctness, efficiency, robustness, usability and security. Its application extends into specialised areas including mobile computing, artificial intelligence, robotics, and large-scale information management involving information retrieval and web search engines.

Career Outcomes

Computer Science graduates will:
•be experienced in the principles and practice of software development;
• be familiar with the principles and operation of networked systems; and
• have a sound understanding of the shared foundations underlying all modern computer-based technologies.

In addition, depending on their choice of optional study areas, they will have the opportunity to gain specific expertise in Information Security, Networks and Communications, Intelligent Systems, Data-Centric Computing, or Human-Computer Interaction.

Course Design

Your QUT Bachelor of Information Technology (Computer Science) degree consists of 288 credit points (24 units) arranged as follows:

a) 72 credit points (6 units) of Computer Science Core units, which includes 2 units from a selected options list.

b) 120 credit points (10 units) of Computer Science discipline units

c) 96 credit points of complementary studies comprising of either a Second Major (8 unit set); or two Minors (4 unit set each); or one Minor (4 unit set) plus 4 elective units.

Computer Science Core Units

These units will engage you in understanding Computer Science from a practical approach with an understanding of a range of disciplinary and multidisciplinary perspectives. Later core units, together with the discipline specific units, will progress your learning development through experiential and enquiry based learning to apply this knowledge in practical systems development projects.

Computer Science Major Discipline Units

These units give you discipline level knowledge, skills and application competencies from introductory through intermediate, culminating with advanced graduate level units. They focus on developing your knowledge, practice and higher order thinking to an advanced level.

Complementary Studies Options

Second Major:

A choice of one second major from:

•Technology Innovation and Design Second Major
•Computational and Simulation Science Second Major

Minors:

A choice of two minors from the lists below:

•Business Process Management Minor
•Data-Centric Computing Extension Minor
•Information Systems Minor
•Enterprise Systems Minor
•Human-Computer Interaction Minor
•Intelligent Systems Minor
•Mobile Applications Minor
•Networks and Security Minor
•Social Technology Minor
•Software Development for IS and Games Minor
•Technology Innovation Minor
•University Wide Minors

Professional membership

Graduates are eligible for membership of the ACS (Australian Computer Society)

Domestic Course structure

Requirements for the completion of IN01 Bachelor of Information Technology (Study Area A) are as follows:

- 72 credit points (6 units) of information technology core units, which includes 12 credit point (1 unit) of option unit* selected from an approved list
- 120 credit points (10 units) of major core units
- 96 credit points of complementary studies comprising of either a second major (8 unit set); or two minors (4 unit set each); or one minor (4 unit set) plus 4 elective units.

**Unit options list - comprises a range of units from which you choose to undertake one unit. You are able to undertake the option unit in any semester. The options include introductory units from a wide variety of disciplines offered at QUT.*

International Course structure

Requirements for the completion of IN01 Bachelor of Information Technology (Study Area A) are as follows:

- 72 credit points (6 units) of information technology core units, which includes 12 credit point (1 unit) of option unit* selected from an approved list
- 120 credit points (10 units) of major core units
- 96 credit points of complementary studies comprising of either a second major (8 unit set); or two minors (4 unit set each); or one minor (4 unit set) plus 4 elective units.

**Unit options list - comprises a range of units from which you choose to undertake one unit. You are able to undertake the option unit in any semester. The options include introductory units from a wide variety of disciplines offered at QUT.*

Sample Structure

Semesters

Code	Title
Year 1, Semester 1	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
IFB103	Designing for IT
IFB104	Building IT Systems
SELECT MAJOR	
Students should select their major prior to enrolling in their Core Option Units	
Year 1, Semester 2	
CAB201	Programming Principles
CAB202	Microprocessors and Digital Systems
IFB130	Database Management
Core Unit Option	
Year 2, Semester 1	
CAB203	Discrete Structures
CAB302	Software Development
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 2, Semester 2	
CAB303	Networks
IFB299	IT Project Design and Development
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
CAB301	Algorithms and Complexity
IFB398	Capstone Project (Phase 1)
2nd Major/Minor unit	
CS Major Elective choice from:	
CAB401	High Performance and Parallel Computing
CAB402	Programming Paradigms
CAB403	Systems Programming
Year 3, Semester 2	
IFB399	Capstone Project (Phase 2)
2nd Major/Minor unit	
2nd Major/Minor unit	
2nd Major/Minor unit	

Bachelor of Information Technology (Information Systems)

Handbook

Year	2017
QUT code	IN01
CRICOS	012656E
Duration (full-time)	3 years
Duration (part-time domestic)	6 years
OP	11
Rank	76
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $28300 per year full-time (96 credit points)
Total credit points	288
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiry - ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Dr Erwin Fielt (SEM-2 2017) +61 7 3138 8822 sef.enquiry@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths A, B or C
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

International Subject prerequisites

- Maths A, B or C

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Overview

Information systems focuses on identifying organisational requirements for applications and acquiring effective systems solutions, whether custom designed and built or selected and implemented, to meet the requirements. Skills involve the design and development of large database applications for business, as well as the purchase and implementation of packaged software addressing business problems. It does not require in-depth knowledge of computer programming but rather in-depth specialised knowledge of databases and software used in business or of the means to analyse business needs and, in partnership with the systems users, design solutions to the inefficiencies or ineffectiveness of business processes.

Career Outcomes

Information Systems graduates will have skills in design, systems thinking, stakeholder engagement and modelling and abstraction which position them to work as Business Analysts, IS Consultants, solving a range of organisational problems.
In addition, depending on their choice of optional study areas, they will have the opportunity to gain specific expertise in Business Process Management, Social Media, Mobile Application Development or Services & Solutions undertaken through complementary minors. Specific skills in Service and Outcomes Management can be gained in the complementary minor called Service and Outcomes Management, which positions graduates for IT management roles within organisations.
Finally, further knowledge of and skills in design and innovation can be gained in the secondary major of Systems Innovation, which will lead to careers as IT innovators within enterprises, consulting companies or in their own start-ups.

Course Design

Your QUT Bachelor of Information Technology (Information Systems) degree consists of 288 credit points (24 units) arranged as follows:

a) 72 credit points (6 units) of Information Systems Core units, which includes 2 units from a selected options list.

b) 120 credit points (10 units) of Information Systems discipline units.

c) 96 credit points of complementary studies comprising of either a Second Major (8 unit set); or two Minors (4 unit set each); or one Minor (4 unit set) plus 4 elective units.

Information Systems Core Units

These units will engage you in understanding Information Systems from a range of disciplinary and multidisciplinary perspectives, expose you to the various outcomes available for pursuing studies in this field and introduce the fundamental basis for policy and practice. Later core units, together with the discipline specific units, will progress your learning development through experiential and enquiry based learning in collaborative environments.

Information Systems Major Discipline Units

These units give you discipline level knowledge, skills and application competencies from introductory through intermediate, culminating with advanced

graduate level units. They focus on developing your knowledge, practice and higher order thinking to an advanced level.

Complementary Studies Options

Second Major:

A choice of one second major from:

•Technology Innovation and Design Second Major
•Computational and Simulation Science Second Major

Minors:

A choice of two minors from the lists below:

•Business Process Management Minor
•Computer Science Minor
•Enterprise Systems Minor
•Human-Computer Interaction Minor
•Information Systems
*Intelligent Systems Minor
•Mobile Applications Minor
•Networks and Security Minor
•Social Technology Minor
•Software Development for IS and Games Minor
•Technology Innovation Minor
•University Wide Minors

Professional Recognition

Graduates are eligible for membership of the ACS (Australian Computer Society)

Domestic Course structure

Requirements for the completion of IN01 Bachelor of Information Technology (Study Area A) are as follows:

- 72 credit points (6 units) of information technology core units, which includes 12 credit point (1 unit) of option unit* selected from an approved list
- 120 credit points (10 units) of major core units
- 96 credit points of complementary studies comprising of either a second major (8 unit set); or two minors (4 unit set each); or one minor (4 unit set) plus 4 elective units.

**Unit options list - comprises a range of units from which you choose to undertake one unit. You are able to undertake this option in any semester. The options include introductory units from a wide variety of disciplines offered at QUT.*

International Course structure

Requirements for the completion of IN01 Bachelor of Information Technology (Study Area A) are as follows:

- 72 credit points (6 units) of information technology core units, which includes 12 credit point (1 unit) of option unit* selected from an approved list
- 120 credit points (10 units) of major core units
- 96 credit points of complementary studies comprising of either a second major (8 unit set); or two minors (4 unit set each); or one minor (4 unit set) plus 4 elective units.

**Unit options list - comprises a range of units from which you choose to undertake one unit. You are able to undertake this option in any semester. The options include introductory units from a wide variety of disciplines offered at QUT.*

Sample Structure

Semesters

- Year 1, Semester 1
- SELECT MAJOR
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2

Code	Title
Year 1, Semester 1	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
IFB103	Designing for IT
IFB104	Building IT Systems
SELECT MAJOR	
Students should select their major prior to enrolling in their Core Option Units	
Year 1, Semester 2	
IFB130	Database Management
Core Unit Option	
IAB201	Modelling Information Systems
IAB202	Business of Information Technology
Year 2, Semester 1	
IAB203	Business Process Modelling
IAB204	Business Analysis
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 2, Semester 2	
IFB299	IT Project Design and Development
IAB205	Corporate Systems
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
IFB398	Capstone Project (Phase 1)
IS Major Elective choice from:	
IAB302	Information Systems Consulting
IAB303	Business Intelligence
IAB304	Project Management
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 2	
IFB399	Capstone Project (Phase 2)
IAB301	Enterprise Architecture
2nd Major/Minor unit	
2nd Major/Minor unit	

Bachelor of Games and Interactive Environments

Handbook

Year	2017
QUT code	IN05
CRICOS	092648J
Duration (full-time)	3 years
OP	11
Rank	76
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $28100 per year full-time (96 credit points)
Total credit points	288
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Ross Brown; email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths A, B or C
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

International Subject prerequisites

- Maths A, B or C

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Bachelor of Games and Interactive Environments (Animation)

Handbook

Year	2017
QUT code	IN05
CRICOS	092648J
Duration (full-time)	3 years
OP	11
Rank	76
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $28100 per year full-time (96 credit points)
Total credit points	288
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Ross Brown; email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Dr Chris Carter

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths A, B or C
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

International Subject prerequisites

- Maths A, B or C

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Domestic Course structure

Requirements for the completion of IN05 Bachelor of Games and Interactive Environments (Study Area A) are as follows:

- 72 credit points (6 units) of games and interactive environments core units, which includes 24 credit points (2 units) of option units* selected from an approved list.
- 120 credit points (10 units) of Major core units
- 96 credit points of complementary studies comprising of either a second major; or two minors (4 unit set each); or one minor (4 unit set) plus 48 credit points of elective units.

** Unit options list - comprises a range of units from which you choose to undertake two (2). The core option choices provide you with space in your course to explore other fields such as within Games and Interactive Environment, Information Technology. These units can be used to complement your Major studies or, explore which areas you may choose for your complementary studies.*

International Course structure

Requirements for the completion of IN05 Bachelor of Games and Interactive Environments (Study Area A) are as follows:

- 72 credit points (6 units) of games and interactive environments core units, which includes 24 credit points (2 units) of option units* selected from an approved list.
- 120 credit points (10 units) of Major core units
- 96 credit points of complementary studies comprising of either a second major; or two minors (4 unit set each); or one minor (4 unit set) plus 48 credit points of elective units.

** Unit options list - comprises a range of units from which you choose to undertake two (2). The core option choices provide you with space in your course to explore other fields such as within Games and Interactive Environment, Information Technology. These units can be used to complement your Major studies or, explore which areas you may choose for your complementary studies.*

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2

Code	Title
Year 1, Semester 1	
IGB180	Computer Games Studies
IGB181	Game Production and Technology
IFB103	Designing for IT
IFB104	Building IT Systems
Year 1, Semester 2	
KNB123	Animation and Motion Graphics
KNB124	3D Animation 1
Core Unit Option	
Core Unit Option	
Year 2, Semester 1	
IGB100	Game Studio 1: Mini-Game Development
KNB212	Real-time 3D Computer Graphics

Bachelor of Games and Interactive Environments (Animation)

2nd Major/Minor unit	
2nd Major/Minor unit	
Year 2, Semester 2	
IGB200	Game Studio 2: Applied Game Development
KNB221	Animation: CG Toolkit
OR	
KNB222	Virtual Environments
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
IGB300	Capstone Project (Game Design)
KNB211	3D Animation 2
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 2	
IGB301	Capstone Project (Game Development)
IGB400	Game Studio 3: Game Innovation
2nd Major/Minor unit	
2nd Major/Minor unit	

Bachelor of Games and Interactive Environments (Game Design)

Handbook

Year	2017
QUT code	IN05
CRICOS	092648J
Duration (full-time)	3 years
OP	11
Rank	76
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $28100 per year full-time (96 credit points)
Total credit points	288
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Ross Brown; email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths A, B or C
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

International Subject prerequisites

- Maths A, B or C

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Domestic Course structure

Requirements for the completion of IN05 Bachelor of Games and Interactive Environments (Study Area A) are as follows:

- 72 credit points (6 units) of games and interactive environments core units, which includes 24 credit points (2 units) of option units* selected from an approved list.
- 120 credit points (10 units) of Major core units
- 96 credit points of complementary studies comprising of either a second major; or two minors (4 unit set each); or one minor (4 unit set) plus 48 credit points of elective units.

** Unit options list - comprises a range of units from which you choose to undertake two (2). The core option choices provide you with space in your course to explore other fields such as within Games and Interactive Environment, Information Technology. These units can be used to complement your Major studies or, explore which areas you may choose for your complementary studies.*

International Course structure

Requirements for the completion of IN05 Bachelor of Games and Interactive Environments (Study Area A) are as follows:

- 72 credit points (6 units) of games and interactive environments core units, which includes 24 credit points (2 units) of option units* selected from an approved list.
- 120 credit points (10 units) of Major core units
- 96 credit points of complementary studies comprising of either a second major; or two minors (4 unit set each); or one minor (4 unit set) plus 48 credit points of elective units.

** Unit options list - comprises a range of units from which you choose to undertake two (2). The core option choices provide you with space in your course to explore other fields such as within Games and Interactive Environment, Information Technology. These units can be used to complement your Major studies or, explore which areas you may choose for your complementary studies.*

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2

Code	Title
Year 1, Semester 1	
IGB180	Computer Games Studies
IGB181	Game Production and Technology
IFB103	Designing for IT
IFB104	Building IT Systems
Year 1, Semester 2	
IGB220	Fundamentals of Game Design
DXB304	Interactive Narrative Design
Core Unit Option	
Core Unit Option	
Year 2, Semester 1	
DXB303	Programming for Visual Designers
IGB100	Game Studio 1: Mini-

	Game Development
IGB320	Game Design in Different Contexts
2nd Major/Minor unit	
Year 2, Semester 2	
IGB200	Game Studio 2: Applied Game Development
IGB321	Immersive Game Level Design
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
IGB300	Capstone Project (Game Design)
2nd Major/Minor unit	
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 2	
IGB301	Capstone Project (Game Development)
IGB400	Game Studio 3: Game Innovation
2nd Major/Minor unit	
2nd Major/Minor unit	

Bachelor of Games and Interactive Environments (Software Technologies)

Handbook

Year	2017
QUT code	IN05
CRICOS	092648J
Duration (full-time)	3 years
OP	11
Rank	76
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $28100 per year full-time (96 credit points)
Total credit points	288
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Ross Brown; email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths A, B or C
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

International Subject prerequisites

- Maths A, B or C

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Domestic Course structure

Requirements for the completion of IN05 Bachelor of Games and Interactive Environments (Study Area A) are as follows:

- 72 credit points (6 units) of games and interactive environments core units, which includes 24 credit points (2 units) of option units* selected from an approved list.
- 120 credit points (10 units) of Major core units
- 96 credit points of complementary studies comprising of either a second major; or two minors (4 unit set each); or one minor (4 unit set) plus 48 credit points of elective units.

** Unit options list - comprises a range of units from which you choose to undertake two (2). The core option choices provide you with space in your course to explore other fields such as within Games and Interactive Environment, Information Technology. These units can be used to complement your Major studies or, explore which areas you may choose for your complementary studies.*

International Course structure

Requirements for the completion of IN05 Bachelor of Games and Interactive Environments (Study Area A) are as follows:

- 72 credit points (6 units) of games and interactive environments core units, which includes 24 credit points (2 units) of option units* selected from an approved list.
- 120 credit points (10 units) of Major core units
- 96 credit points of complementary studies comprising of either a second major; or two minors (4 unit set each); or one minor (4 unit set) plus 48 credit points of elective units.

** Unit options list - comprises a range of units from which you choose to undertake two (2). The core option choices provide you with space in your course to explore other fields such as within Games and Interactive Environment, Information Technology. These units can be used to complement your Major studies, or explore which areas you may choose for your complementary studies.*

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2

Code	Title
Year 1, Semester 1	
IGB180	Computer Games Studies
IGB181	Game Production and Technology
IFB103	Designing for IT
IFB104	Building IT Systems
Year 1, Semester 2	
CAB201	Programming Principles
IGB283	Game Engine Theory and Application
Core Unit Option	
Core Unit Option	
Year 2, Semester 1	
CAB301	Algorithms and Complexity
IGB100	Game Studio 1: Mini-

Bachelor of Games and Interactive Environments (Software Technologies)

	Game Development
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 2, Semester 2	
IGB200	Game Studio 2: Applied Game Development
IGB381	Game Engine Technology
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
IGB383	AI for Games
IGB300	Capstone Project (Game Design)
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 2	
IGB301	Capstone Project (Game Development)
IGB400	Game Studio 3: Game Innovation
2nd Major/Minor unit	
2nd Major/Minor unit	

Bachelor of Games and Interactive Entertainment

Handbook

Year	2017
QUT code	IT04
CRICOS	059710E
Duration (full-time)	3 years
OP	11
Rank	76
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9,000 per year full-time (96 credit points)
International fee (indicative)	2017: $28,000 per year full-time (96 credit points)
Total credit points	288
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Mike Roggenkamp; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths A, B or C
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement.

International Subject prerequisites

- Maths A, B or C

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Update

This course will be offered in 2014, however the course structure is being redeveloped and is subject to university approval.
For course updates please visit www.qut.edu.au/coursechanges

Why Choose This Course

This course is a collaboration between the faculties of Science and Engineering, and Creative Industries, allowing you to be taught design and technology skills from the experts in their field.

Massive cultural changes are occuring due to the advent of consumer 3D technology. This has changed the expectations and abilities of people, creating more jobs for the industry.

Queensland is leading the video game industry with figures showing the State earns more than any other from interactive entertainment. The State's game developers generate approximately $55 million per year; a 40 per cent slice of Australia's video games earnings, according to an Australian Bureau of Statistics report. Queensland game companies also employ almost half of the video game industry's workforce, with Brisbane becoming a hub of games talent, producing games for a worldwide audience.

Popular games titles produced in Queensland include Hellboy, Fruit Ninja, the children's game Viva Pinata Party Animals and Star Wars: The Force Unleashed.

Course Structure

The 24-unit degree comprises:

• seven (7) core units including a 24-credit-point final-year project
• eight units in your chosen major
• four units in a secondary area of study, also known as your minor
• four optional units where you can choose units from across QUT to complement your studies.

MAJORS
Choose your primary area of study, also known as your major, from:

Animation This major includes foundation studies in the production of animation and motion graphics; history of animation practices; and programming which includes object orientation, 3D computer graphics and computer generated art. You will develop skills enabling you to work in areas such as computer games, interactive media arts, web applications, sound design, adaptive music and interactive public art works.

Game Design This major provides you with hands-on game design experience, as well as knowledge of narrative and immersion (drawing the player into the game), and game-level design to provide the skills necessary to create interesting and unique game worlds.

Software Technologies This major will prepare you for careers in the game and simulation industries such as software tester, video game tester, game programmer and software tools developer. You will study technological aspects of computer games, games engine and tools development. Companies used to provide 'in-house' training for programming skills, however they are now turning to tertiary institutions to provide appropriately qualified graduates.

Bachelor of Games and Interactive Entertainment

MINORS
- Animation
- Advanced Animation*
- Digital Media
- Entrepreneurship
- Game Design
- Legal Issues
- Marketing
- Mathematics for Games
- Mobile and Network Technologies
- Physics for Games
- Software Technologies
- Advanced Software Technologies^
- Sound Design

*Only available to those undertaking the animation major.
^Only available to those undertaking the software technologies major.

Professional Recognition
The Software Technologies major within this course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

Your Course
Year 1
In your first year you will undertake five core units, consisting of:

- Computer Games Studies
- Building IT Systems
- Industry Insights
- Introducing Design
- Games Production

You will also undertake three units within your chosen major or minor.

Year 2
Second year consists of units within your chosen major and minor together with electives chosen from anywhere in the University.

Year 3
In your final year, you will extend your professional and technical skills by participating in a major group project to produce a significant piece of digital work using PC, mobile devices, consoles or virtual reality. You will also undertake a Bachelor of Games and Interactive Entertainment design project. You will complete your units for your chosen major, minor and optional units.

Cooperative Education Program
The Cooperative Education Program gives students the opportunity of 10-12 months paid industry placement during your course where they can integrate real experience with what they are learning in their degree. Companies that QUT's Coop Ed students have worked with include Energex, Boeing, CITEC, CSC Mining, Environmental Protection Agency, Dialog, UNiTAB, RACQ and many Queensland Government departments.

Students participating in this program enrol in INS011 Cooperative Education 1 and INS012 Cooperative Education 2 in the second semester of the program. The cooperative education program and its mentoring and assessment requirements make up the required contact and assessment of both units. Eligibility criteria apply. International students are not eligible due to visa restrictions.

Part-time students who are working in a professional position related to the BGIE may be able to use their current employment to meet the criteria for completing INS011 Cooperative Edcation 1, after completion of 168 credit points in the Bachelor of Games and Interactive Entertainment, subject to meeting eligibility criteria. Further information about this option is available from Student Services, Level 3, O Block Podium, Gardens Point Campus.

Find out more about the Cooperative Education Program.

Unit Incompatibility/Translation Information
Details on the translation and incompatibility of old and new units is located here:
Undergraduate Translation Table
If you have completed the unit(s) listed under the “Translation Unit Codes” column you are not permitted to enrol in the listed new code.

Credit for Previous Study
Domestic and international applicants may claim credit for part of the degree, on the basis of completed or partially completed studies, related to the Bachelor of IT.

International students can access advanced standing arrangements on QUT's international site.

Domestic applicants should view the credit information on the Student Services site.

Domestic Course structure
The 24-unit degree comprises:
- five core units plus a 36-credit-point final-year project (three units equivalent)
- eight units in your chosen major
- four units in a secondary area of study, also known as your minor
- four optional units where you can choose units from across QUT to complement your studies.

Majors
Choose your primary area of study, also known as your major, from:

Animation
This major includes foundation studies in the production of animation and motion graphics; history of animation practices; and programming, which includes object orientation, 3D computer graphics and computer-generated art. You will develop skills enabling you to work in areas such as computer games, interactive media arts, web applications, sound design, adaptive music and interactive public art works.

Game design
This major provides you with hands-on game design experience, as well as knowledge of narrative and immersion (drawing the player into the game), and game-level design to provide the skills necessary to create interesting and unique game worlds.

Software technologies
This major will prepare you for careers in the game and simulation industries such as software tester, video game tester, game programmer and software tools developer. You will study technological aspects of computer games, games engine and tools development. Companies used to provide ‘in-house’ training for programming skills; however they are now turning to tertiary institutions to provide appropriately qualified graduates.

Minors
- Animation
- Advanced animation*
- Digital media
- Entrepreneurship
- Game design
- Legal issues
- Marketing
- Mathematics for games
- Mobile and network technologies
- Physics for games
- Software technologies
- Advanced software technologies^
- Sound design

*Only available to those undertaking the animation major.

^Only available to those undertaking the software technologies major.

Bachelor of Games and Interactive Entertainment

Your course

Year 1

In your first year you will undertake five core units, consisting of:

- Computer games studies
- Building IT systems
- Impact of IT
- Design IT
- Games production.

You will also undertake three units within your chosen major or minor.

Year 2

Second year consists of units within your chosen major and minor together with optional units chosen from anywhere in the University.

Year 3

In your final year, you will extend your professional and technical skills by participating in a major group project to produce a significant piece of digital work using PC, mobile devices, consoles or virtual reality. You will also undertake a Bachelor of Games and Interactive Entertainment design project. You will complete your units for your chosen major, minor and optional units.

International Course structure

Course structure

The 24-unit degree comprises:

- five core units plus a 36-credit-point final-year project (three units equivalent)
- eight units in your chosen major
- four units in a secondary area of study, also known as your minor
- four optional units where you can choose units from across QUT to complement your studies.

Majors

Choose your primary area of study, also known as your major, from:

Animation

This major includes foundation studies in the production of animation and motion graphics; history of animation practices; and programming which includes object orientation, 3D computer graphics and computer-generated art. You will develop skills enabling you to work in areas such as computer games, interactive media arts, web applications, sound design, adaptive music and interactive public art works.

Game Design

This major provides you with hands-on game design experience, as well as knowledge of narrative and immersion (drawing the player into the game), and game-level design to provide the skills necessary to create interesting and unique game worlds.

Software Technologies

This major will prepare you for careers in the game and simulation industries such as software tester, video game tester, game programmer and software tools developer. You will study technological aspects of computer games, games engine and tools development. Companies used to provide 'in-house' training for programming skills; however they are now turning to tertiary institutions to provide appropriately qualified graduates.

Minors

- Animation
- Advanced Animation*
- Digital Media
- Entrepreneurship
- Game Design
- Legal Issues
- Marketing
- Mathematics for Games
- Mobile and Network Technologies
- Physics for Games
- Software Technologies
- Advanced Software Technologies^
- Sound Design

Your course

Year 1

In your first year you will undertake five core units, consisting of:

- Computer Games Studies
- Building IT Systems
- Impact of IT
- Design IT
- Games Production.

You will also undertake three units within your chosen major or minor.

Year 2

Second year consists of units within your chosen major and minor together with optional units chosen from anywhere in the University.

Year 3

In your final year, you will extend your professional and technical skills by participating in a major group project to produce a significant piece of digital work using PC, mobile devices, consoles or virtual reality. You will also undertake a Bachelor of Games and Interactive Entertainment design project. You will complete your units for your chosen major, minor and optional units.

*Only available to those undertaking the animation major.

^Only available to those undertaking the software technologies major.

Sample Structure

Semesters

Code	Title
The course consists of four blocks of studies	
Block A: Core Studies (7 units including a 24 credit point Project)	
Block B: Major (8 units) selected from Animation; Games Design; Sotware Technologies	
Block C: Minor (4 units)	
Block D: Electives (4 units)	
The Cooperative Education Programs are replacements for general IT electives	
Year 1, Semester 1	
IFB103	Designing for IT
IFB104	Building IT Systems
IGB180	Computer Games Studies
[INB180 replaced by IGB180 in 2017]	
IFB102	Computer Technology Fundamentals
[IFB102 replaced by IGB181 in 2017]	
Year 1, Semester 2	
IFB101	Impact of IT
Block B Unit	
Block B Unit	
Block B or Block C or Block D Unit	
Year 2, Semester 1	
Block B or Block C or Block D Unit	
Block B or Block C or Block D Unit	
Block B or Block C or Block D Unit	
Block B or Block C or Block D Unit	
Year 2, Semester 2	
Block B or Block C or Block D Unit	
Block B or Block C or Block D Unit	
Block B or Block C or Block D Unit	
Block B or Block C or Block D Unit	
Year 3, Semester 1	
INB379	Game Project Design
Block B or Block C or Block D Unit	
Block B or Block C or Block D Unit	
Block B or Block C or Block D Unit	

Bachelor of Games and Interactive Entertainment

Year 3, Semester 2	
INB380	Games Project
Block B or Block C or Block D Unit	
Block B or Block C or Block D Unit	
Note: Coop Ed students replace INB380 with INS011 and INS012	

Bachelor of Corporate Systems Management

Handbook

Year	2017
QUT code	IT06
CRICOS	059712C
Duration (full-time)	3 years
Duration (part-time domestic)	6 years
OP	12
Rank	75
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	288
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Ph: +61 7 3138 8822; Email: sef.enquiry@qut.edu.au
Discipline Coordinator	

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (English (4, SA) and Maths A, B or C (4, SA)).

International Subject prerequisites

- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies (English (4, SA) and Maths A, B or C (4, SA)).

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Why Choose This Course

You may have a great idea for new mobile software, a new way to conduct business over the net, or even how a business could out-manoeuvre its competitors using information technology. You know the importance of IT and you are excited about what IT can do and either want to develop the next big thing yourself or be able to evaluate, identify, choose and integrate from myriad technologies to arrive at a creative solution. This degree will equip you with the knowledge and skills to realise these aspirations. Whether as a professional within an organisation, as a consultant, or as an entrepreneur, you will be well equipped to take advantage of the demand for business-savvy IT professionals who are able to creatively develop or identify IT solutions to help organisations adapt and grow.

Course Structure

The 24-unit degree comprises:
• 16 core units that build your understanding of the relationships between information, technology, business and people
• eight units in a specialisation of your choice – you could choose to further specialise in information technology, a set of units from a different discipline, or optional units from across QUT to complement your studies.

Specialisation options include:

• adult and community learning
• business systems engineering
• construction management – administration
• creative industries management
• databases
• entrepreneurship
• finance
• forensics
• human resource management
• organisational psychology
• information systems
• information management/information technology management
• international studies
• law
• management
• marketing
• public health

Professional Recognition

This course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

Your Course

Year 1

In your first semester, you will complete the first four core units:
• Impact of IT
• Industry Insights
• Corporate Systems
• Organisational Databases.

In your second semester, you will complete three more core units:
• Management, People and Organisations
• Project Management Practice
• Information Systems Development.

You will also choose your specialisation and complete your first specialisation unit, or start your electives.

Year 2

In first semester, you will complete three core units:
• Business Analysis

• Technology Management
• Creating New Enterprises.

You will also complete your second specialisation unit or electives.

In second semester, you will complete two core units:
• Marketing
• Web Sites for Electronic Commerce.

You will also complete two more specialisation units or electives.

Year 3
In your first semester, you will complete two core units:
• Enterprise Systems Applications
• Information Systems Consulting.

You will also complete two more specialisation units or electives.

In your second semester, you will complete the last two core units:
• Business Process Modelling
• Corporate Systems Management Project (your final-year showcase project).

You will also complete the last two units of your specialisation or electives.

Course Requirements

Block A: Core Units
16 Units (includes an industry-based project)

Block B: Complementary Studies
Students can select unit set(s) from within the Science and Engineering Faculty or from those offered by other Faculties at QUT. Some options for complementary studies are listed in this document. Alternatively, students may select to take up to 8 elective units with the approval of the Course Coordinator.

If you require assistance in selecting your IT Complementary Studies please contact your Course Coordinator.

UNIT SELECTION PROCESS

• Determine which units you are yet to complete
• Check that you meet the prerequisite requirements for these units
• Check the availability of the unit in the given semester
• Enrol in the appropriate units and ensure you have nominated your major via your online enrolment page

NOTE: It is the student's responsibility to ensure that the correct enrolment program is nominated and prerequisite requirements are met for selected units. Assistance with planning your enrolment is available from Student Services, Level 3, O Block Podium, Gardens Point campus.

Cooperative Education Program

The Cooperative Education Program gives students the opportunity of 10-12 months paid industry placement during your course where they can integrate real experience with what they are learning in their degree. Companies that QUT's Coop Ed students have worked with include Energex, Boeing, CITEC, CSC Mining, Environmental Protection Agency, Dialog, UNiTAB, RACQ and many Queensland Government departments.
Students participating in this program enrol in INB300 Professional Practice in IT in the first semester of the program and in INB325 Corporate Systems Management Project in the second semester of the program. The cooperative education program and its mentoring and assessment requirements make up the required contact and assessment components of both units. Eligibility criteria apply. International students are not eligible due to visa restrictions.

Part-time students who are working in a professional IT position may be able to use their current employment to meet the criteria for completing INB300 Professional Practice in IT, after completion of 168 credit points in the Bachelor of Corporate Systems Management component, subject to meeting eligibility criteria. Further information about this option is available from Student Services, Level 3, O Block Podium, Gardens Point campus or see the unit outline for INB300.

Find out more about the Cooperative Education Program.

Unit Incompatibility/Translation Information

Details on the translation and incompatibility of old and new units is located here:
Undergraduate Translation Table
If you have completed the unit(s) listed under the "Translation Unit Codes" column you are not permitted to enrol in the listed new code.

Intermediate Level Electives
If you have not completed ITB008 you will need to replace it with one of the following intermediate level elective units.
• INB120 Corporate Systems
• INB220 Business Analysis
• INB255 Security
• INB272 Interaction Design
Or, an INB300 level unit as approved by the course coordinator

Domestic Course structure

Course structure

The 24-unit degree comprises:
- 16 core units that build your understanding of the relationships between information, technology, business and people
- eight units in a specialisation of your choice – you could choose to further specialise in information technology, a set of units from a different discipline, or optional units from across QUT to complement your studies.

Specialisation options include:
- adult and community learning
- business systems engineering
- construction management – administration
- creative industries management
- databases
- entrepreneurship
- finance
- forensics
- human resource management
- organisational psychology
- information systems
- information management/information technology management
- international studies
- law
- management
- marketing
- public health.

Your course

Year 1

In your first semester, you will complete the first four core units:
- Impact of IT
- Industry Insights
- Corporate Systems
- Organisational Databases.

In your second semester, you will complete three more core units:
- Management, People and Organisations
- Project Management Practice
- Information Systems Development.

You will also choose your specialisation and complete your first specialisation unit, or start your electives.

Year 2

In first semester, you will complete three core units:
- Business Analysis
- Technology Management
- Creating New Enterprises.

You will also complete your second specialisation unit or electives.

In second semester, you will complete two core units:

- Marketing
- Web Sites for Electronic Commerce.

You will also complete two more specialisation units or electives.

Year 3

In your first semester, you will complete two core units:

- Enterprise Systems Applications
- Information Systems Consulting.

You will also complete two more specialisation units or electives.

In your second semester, you will complete the last two core units:

- Business Process Modelling
- Corporate Systems Management Project (your final-year showcase project).

You will also complete the last two units of your specialisation or electives.

International Course structure

Course structure

The 24-unit degree comprises:

- 16 core units that build your understanding of the relationships between information, technology, business and people
- eight units in a specialisation of your choice – you could choose to further specialise in information technology, a set of units from a different discipline, or optional units from across QUT to complement your studies.

Specialisation options include:

- adult and community learning
- business systems engineering
- construction management – administration
- creative industries management
- databases
- entrepreneurship
- finance
- forensics
- human resource management
- organisational psychology
- information systems
- information management/information technology management
- international studies
- law
- management
- marketing
- public health.

Your course

Year 1

In your first semester, you will complete the first four core units:

- Impact of IT
- Industry Insights
- Corporate Systems
- Organisational Databases.

In your second semester, you will complete three more core units:

- Management, People and Organisations
- Project Management Practice
- Information Systems Development.

You will also choose your specialisation and complete your first specialisation unit, or start your electives.

Year 2

In first semester, you will complete three core units:

- Business Analysis
- Technology Management
- Creating New Enterprises.

You will also complete your second specialisation unit or electives.

In second semester, you will complete two core units:

- Marketing
- Web Sites for Electronic Commerce.

You will also complete two more specialisation units or electives.

Year 3

In your first semester, you will complete two core units:

- Enterprise Systems Applications
- Information Systems Consulting.

You will also complete two more specialisation units or electives.

In your second semester, you will complete the last two core units:

- Business Process Modelling
- Corporate Systems Management Project (your final-year showcase project).

You will also complete the last two units of your specialisation or electives.

Bachelor of Information Technology

Handbook

Year	2017
QUT code	IT23
CRICOS	012656E
Duration (full-time)	3 years
Duration (part-time domestic)	6 years
OP	12
Rank	75
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	288
Start months	February, July
Int. Start Months	February, July This course is available to international students who are eligible for a year or more of Advanced Standing (Credit).
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Mr Mike Roggenkamp; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (English (4,SA) and Maths A, B or C (4,SA)).

International Subject prerequisites

- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies (English (4,SA) and Maths A, B or C (4,SA)).

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Update

As of 2014, this course will only be available for IT23 continuing students and those students who are commencing in 2014 with approved advanced standing of 60cp or more towards core units. New students should refer to IN01 Bachelor of Information Technology.

For further assistance, please contact sef.enquiry@qut.edu.au.

Pathways

You have the opportunity to choose a study pathway:

• **professional pathway** – you will learn how to think strategically, identify opportunities and solve problems that we don't even know are problems yet. This pathway will enable you to acquire the business and IT skills to have a career as an IT professional within any industry.

• **research pathway** – if you are interested in shaping the future of the IT industry you can pursue a research career. You will have opportunities to work with researchers on projects and progress on to an honours degree. You will have access to world-leading researchers within the Faculty.

• **entrepreneurship pathway** – you now have the opportunity to gain the entrepreneurial skills to develop an idea into a commercial opportunity. You will be able to take advantage of the Faculty's close relationship with local technology entrepreneurs to learn from their experiences.

In 2001, the Faculty introduced an accelerated Honours program to increase the number of Bachelor of Information Technology students continuing their studies to complete the Honours year. The program allowed selected high achieving students the opportunity to undertake one postgraduate unit in the final semester of the Bachelor of Information Technology which would be counted both for completion of the degree and towards Honours. The program also provided students with the opportunity to commence their Honours studies over the Summer Semester.

The Dean's Scholars program was introduced in Semester 1, 2006. This program provides a scholarship for OP 1 and 2 students throughout their Bachelor and Honours degrees. Students in the program are required to maintain a high GPA to continue to qualify for the scholarship each semester. Students in the Dean's Scholars program will be able to take advantage of the Accelerated Honours program. Students in the Dean's Scholars program will have an option to follow an accelerated pathway through the Bachelor of Information Technology, allowing them to complete the Bachelor of Information Technology course plus the Bachelor of Information (Honours) course in a total of three years.

To encourage students to enter the Dean's Scholars program, domestic students have their undergraduate HECS paid by the Faculty and those proceeding to Honour's level will also receive full HECS support. International students who have completed a Year 12 education in Australia and meet the entry requirements for the program will have a third of their tuition fees paid by the Faculty for the undergraduate and Honours program.

An alternative to the Honours program is the Master of Information Technology

(Research). Students who complete IT23 with a grade point average equal to, or greater than 5 (7 point scale) and who have decided against enrolling in an Honours program, could undertake this course. In addition, students may wish to enrol in the re-designed postgraduate coursework Masters which has ten specialisations allowing students to either extend their area of interest or specialise in other areas at the Masters level.

Design Your Own Degree

The Bachelor of Information Technology provides you with the practical skills and theoretical knowledge to become an effective professional.

The 24-unit degree comprises:

• **eight core units** – four introductory units in first semester to introduce you to the breadth of information technology and its relationship to modern society. Then there are four advanced units spread over the rest of your degree program to develop your professional skills in preparation for your career

• **four breadth units** (intermediate level units) – these units give you broad technical experience across a range of fields in information technology. They also give you an introduction to choose the specialisation you wish to focus on

• **four specialisation units** (advanced level units) – these units allow you to focus on your chosen area of study, or you may choose to continue to broaden your information technology skills. This option allows you to study across a selection of study areas rather than focusing on one specialisation

• **eight optional units** – these units allow you to customise your degree by studying in another professional discipline (for example, business, health, or science). Or you may choose to gain further depth in other areas of information technology.

SPECIALISATION AREAS

Business Process Management
Learn how to increase business efficiency. All businesses require IT to effectively and efficiently support their operations. This specialisation provides you with the skills required to improve business performance.

Data Warehousing
Database technology, the software that enables us to buy concert tickets online, download music or book a flight, is sophisticated and complex. You will gain knowledge and skills in the accurate recording, rapid retrieval and management of data that is essential to modern society. You will learn how to mine existing sets of data to extract hidden knowledge.

Digital Environments
Study how developments in IT shape society through applications like FaceBook, MySpace, Second Life, smart phones, iPods and gaming devices.

Enterprise Systems
Enterprise systems from vendors like SAP, Mincom and Oracle form the fundamental structure of organisational processes in most large organisations. You will gain hands-on experience with successful enterprise systems to enable you to put into practice the theory that supports business activities.

Network Systems
Learn to tackle emerging network issues such as security, network monitoring and high availability design, and gain up-to-date technical skills for the administration and management of computer networks.

Software Engineering
Software is the invisible infrastructure of modern society. Almost all aspects of business and social endeavour are facilitated by software applications or devices controlled by software. You will learn how leading-edge techniques and technologies enable you to design and implement complex software systems for use in a wide range of domains.

Web Technologies
Web technologies are the principal mechanism for integrating the various applications that exist within an organisation. They also provide the main user interface for most applications used by internal and external clients, including modern web-based interfaces. You will develop practical skills to help organisations use web technologies effectively in deploying a range of applications and services.

Career Outcomes

Information technology is an integral part of all commercial, industrial, government, social and personal activities. In the long term, your career opportunities are unbounded. Some information technology graduates retain a technical focus in roles such as web developer, database manager, network administrator, electronic commerce developer, data communications specialist, software engineer, systems programmer, computer scientist, systems analyst or programmer. Others evolve into domain experts as chief technology officers, chief information officers, managers, executives, business analysts, entrepreneurs or researchers. Graduates have the opportunity to achieve the highest levels of their profession.

Professional Recognition

This course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

Your Course

Year 1
In your first semester you will explore how information technology has changed the world and what the possibilities are for the future. You will look at the details of information, computing and communication technologies to understand how they work. You will take part in hands-on projects developing small information technology systems.

Core units for Year 1:
• Impact of IT
• Emerging Technology
• Industry Insights
• Building IT Systems

In Semester 2 you will undertake three breadth units and one elective.

Year 2
In your second year you will take part in a collaborative team setting, working on small projects that integrate the skills you learnt during Year 1. You will also start studying more advanced units in your chosen field of specialisation.

Core unit for Year 2:
• Scalable Systems Development

Throughout Year 2 you will undertake one breadth unit, two specialisation units and four elective units.

Year 3
In third year you will be able to undertake workplace experience opportunities offered by the Faculty, while earning credit towards your degree. You will continue studying in your area of specialisation. In your final semester you will develop a major project, showcasing what you have learnt during your degree—providing you with a key part of your portfolio when seeking a job.

Core units for Year 3:
• Professional Practice in IT
• The Business of IT
• IT Capstone Project

Throughout Year 3 you will undertake two specialisation units and three elective units.

Cooperative Education Program

An optional half or full year period of paid work experience is available to eligible full-time students. Students participating in this program enrol in INS011 Co-Operative Education 1 in the first semester of the program and in INS012 Co-Operative Education 2 in the second semester of the program. The cooperative education program and its mentoring and assessment requirements make up the required contact and assessment components of both units. Eligibility criteria apply. International students are not eligible due to visa restrictions. International students wishing to undertake a similar program should consider applying to take part in a CEED project or for an ACS Foundation scholarship.

Part-time students who are working in a professional IT position may be able to use their current employment to meet the criteria for completing INB300 Professional Practice in IT, after completion of 168 credit points in the Bachelor of Information Technology. Further information about this option is available from the unit outline for INB300.

Find out more about the Cooperative Education Program.

Domestic Course structure

The Bachelor of Information Technology has been redesigned for 2014 to the specifications of the Australian Qualifications Framework and to align with current industry requirements. The changes for 2014 include:

- New course code and award – Bachelor of Information Technology (Study Area A)
- Majors : Information Systems and Computer Science
- **The new course information will be uploaded to this site shortly.**

Design your own degree

This information applies to continuing students and those on pathway courses

The Bachelor of Information Technology provides you with the practical skills and theoretical knowledge to become an effective professional. The 24-unit degree comprises:

- eight core units - four introductory units in first semester to introduce you to the breadth of information technology and its relationship to modern society. Then there are four advanced units spread over the rest of your degree program to develop your professional skills in preparation for your career
- four breadth units (intermediate level units) - these units give you broad technical experience across a range of fields in information technology. They also give you an introduction to choose the specialisation you wish to focus on
- four specialisation units (advanced level units) - these units allow you to focus on your chosen area of study, or you may choose to continue to broaden your information technology skills. This option allows you to study across a selection of study areas rather than focusing on one specialisation
- eight optional units - these units allow you to customise your degree by studying in another professional discipline (for example, business, health, or science). Or you may choose to gain further depth in other areas of information technology.

Specialisation areas

Business Process Management

Learn how to increase business efficiency. All businesses require IT to effectively and efficiently support their operations. This specialisation provides you with the skills required to improve business performance.

Data Warehousing

Database technology, the software that enables us to buy concert tickets online, download music or book a flight, is sophisticated and complex. You will gain knowledge and skills in the accurate recording, rapid retrieval and management of data that is essential to modern society. You will learn how to search existing sets of data to extract hidden knowledge.

Digital Environments

Study how developments in IT shape society through applications like Facebook, Twitter, Second Life, smart phones, iPods and gaming devices.

Enterprise Systems

Enterprise systems from vendors like SAP, Mincom and Oracle form the fundamental structure of organisational processes in most large organisations. You will gain hands-on experience with successful enterprise systems to enable you to put into practice the theory that supports business activities.

Network Systems

Learn to tackle emerging network issues such as security, network monitoring and high availability design, and gain up-to-date technical skills for the administration and management of computer networks.

Software Engineering

Software is the invisible infrastructure of modern society. Almost all aspects of business and social endeavour are facilitated by software applications or devices controlled by software. You will learn leading-edge techniques and technologies to enable you to design and implement complex software systems for use in a wide range of domains.

Web Technologies

Web technologies are the principal mechanism for integrating the various applications that exist within an organisation. They also provide the main user interface for most applications used by internal and external clients, including modern web-based interfaces. You will develop practical skills to help organisations use web technologies effectively in deploying a range of applications and services.

Your course

Year 1

In your first semester you will explore how information technology has changed the world and what the possibilities are for the future. You will look at the details of information, computing and communication technologies to understand how they work. You will take part in hands-on projects developing small information technology systems.

Core units for Semester 1:

- Impact of IT
- Emerging Technology
- Industry Insights
- Building IT Systems.

In Semester 2 you will undertake three breadth units and one optional unit.

Year 2

In your second year you will take part in a collaborative team setting, working on small projects that integrate the skills you learnt during Year 1. You will also start studying more advanced units in your chosen field of specialisation.

Core unit for Year 2:

- Scalable Systems Development.

Throughout Year 2 you will undertake a mix of breadth, specialisation and optional units.

Year 3

In third year you will be able to undertake workplace experience opportunities offered by the Faculty. In your final semester you will develop a major project, which will showcase what you have learnt during your degree and provide you with a key part of your portfolio when seeking a job.

Core units for Year 3:

- Professional Practice in IT
- The Business of IT
- IT Capstone Project.

International Course structure

Design your own degree

The Bachelor of Information Technology provides you with the practical skills and theoretical knowledge to become an effective professional. The 24-unit degree comprises:

- eight core units - four introductory units in first semester to introduce you to the breadth of information technology and its relationship to modern society. Then there are four advanced units spread over the rest of your degree program to develop your professional skills in preparation for your career
- four breadth units (intermediate level units) - these units give you broad technical experience across a range of fields in information technology. They also give you an introduction to choose the specialisation you wish to focus on
- four specialisation units (advanced level units) - these units allow you to focus on your chosen area of study, or you may choose to continue to broaden your information technology skills. This option allows you to study across a selection of study areas rather than focusing on one specialisation
- eight optional units - these units allow you to customise your degree by studying in another professional discipline (for example, business, health, or science). Or you may choose to gain further depth in other areas of information technology.

Specialisation areas

Business Process Management

Learn how to increase business efficiency. All businesses require IT to effectively and efficiently support their operations. This specialisation provides you with the skills required to improve business performance.

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Enterprise Systems

Enterprise systems from vendors like SAP, Mincom and Oracle form the fundamental structure of organisational processes in most large organisations. You will gain hands-on experience with successful enterprise systems to enable you to put into practice the theory that supports business activities.

Network Systems

Learn to tackle emerging network issues such as security, network monitoring and high availability design, and gain up-to-date technical skills for the administration and management of computer networks.

Software Engineering

Software is the invisible infrastructure of modern society. Almost all aspects of business and social endeavour are facilitated by software applications or devices controlled by software. You will learn leading-edge techniques and technologies to enable you to design and implement complex software systems for use in a wide range of domains.

Web Technologies

Web technologies are the principal mechanism for integrating the various applications that exist within an organisation. They also provide the main user interface for most applications used by internal and external clients, including modern web-based interfaces. You will develop practical skills to help organisations use web technologies effectively in deploying a range of applications and services.

Your course

Year 1

In your first semester you will explore how information technology has changed the world and what the possibilities are for the future. You will look at the details of information, computing and communication technologies to understand how they work. You will take part in hands-on projects developing small information technology systems.

Core units for Semester 1:

- Impact of IT
- Emerging Technology
- Industry Insights
- Building IT Systems.

In Semester 2 you will undertake three breadth units and one optional unit.

Year 2

In your second year you will take part in a collaborative team setting, working on small projects that integrate the skills you learnt during Year 1. You will also start studying more advanced units in your chosen field of specialisation.

Core unit for Year 2:

- Scalable Systems Development.

Throughout Year 2 you will undertake a mix of breadth, specialisation and optional units.

Year 3

In third year you will be able to undertake workplace experience opportunities offered by the Faculty. In your final semester you will develop a major project, which will showcase what you have learnt during your degree and provide you with a key part of your portfolio when seeking a job.

Core units for Year 3:

- Professional Practice in IT
- The Business of IT
- IT Capstone Project.

Sample Structure

Course Updates

This stucture is for students who are admitted to IT23 commencing 2014 or for those students who have not yet completed their 1st year Core units.

From 2014, first year core units in IT23 Bachelor of Information Technology have been recoded, renamed or discontinued. To see how these changes affect you, please consult the Information Technology unit replacement table below in conjunction with the course structure. Affected Study Plans are being amended to reflect the changes.

Please contact the Faculty if you have any concerns.

Information Technology Unit Replacement Table

Bachelor of Information Technology

Semesters

Code	Title
Year 1, Semester 1	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
IFB103	Designing for IT
IFB104	Building IT Systems
[Note: INB101 - INB104 have been replaced with new units IFB101-104 from Semester 1 2014 onwards]	
Year 1, Semester 2	
IT Breadth Option Unit	
IT Breadth Option Unit	
IT Breadth Option Unit	
Complementary Studies Unit	
Year 2, Semester 1	
IFB299	IT Project Design and Development
[INB201 replaced by IFB299 in 2015.]	
[NOTE: INB201/IFB299 can only be taken after you have completed a minimum of 36 credit points of breadth units.]	
IT Breadth Option Unit	
IT Specialisation Option Unit	
Complementary Studies Unit	
Year 2, Semester 2	
IT Specialisation Option Unit	
Complementary Studies Unit	
Complementary Studies Unit	
Complementary Studies Unit	
Year 3, Semester 1	
IFB398	Capstone Project (Phase 1)
CAB398 replaced INB300 in 2016. IFB398 then replaced CAB398 in 2017. If INB302 had been completed, INB300 was replaced with an option line.	
IAB202	Business of Information Technology
[INB301 replaced by IAB202 in 2016.]	
[NOTE: INB300/CAB398/IFB398 and INB301/IAB202 can only be taken after you have completed a minimum of 168 credit points of study.]	
IT Specialisation Option Unit	
Complementary Studies Unit	
Year 3, Semester 2	
IFB399	Capstone Project (Phase 2)
If INB300 was replaced by CAB398/IFB398 on study plan in 2016, then INB302 was also replaced by CAB399/IFB399. Otherwise INB302 replaced with an option line in 2017.	
IT Specialisation Option Unit	
Complementary Studies Unit	
Complementary Studies Unit	

Bachelor of Mathematics

Handbook

Year	2017
QUT code	MS01
CRICOS	049433D
Duration (full-time)	3 years
Duration (part-time domestic)	6 years
OP	6
Rank	89
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9200 per year full-time (96 credit points)
International fee (indicative)	2017: $28200 per year full-time (96 credit points)
Total credit points	288
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Associate Professor Tim Moroney; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended Study: Maths C.

International Subject prerequisites

- Maths B

Recommended Study: Maths C

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Overview

The Bachelor of Mathematics course provides a modern and rigorous training in mathematics to prepare students both for graduate careers in industry and government as well as for honours and postgraduate research work. This course provides students with a mathematics degree that clearly defines paths of study associated with different graduate outcomes in order to meet the wide range of employment possibilities open to mathematics graduates. As well as this, it maintains for students the option to complete a degree that is heavily mathematical through the inclusion of second major and minor options in mathematics and statistics.

The course combines underlying theory with modelling, computational skills and the latest computer technology to enable students to solve real-world problems and prepare them for their future career. Skill development in communication, problem solving, critical thinking and teamwork form an integral part of this course.

Course Design

Your QUT Bachelor of Mathematics degree consists of 288 credit points (24 units) arranged as follows:

(a) 72 credit points (6 units) of Core units, which are further divided into 48 credit points (4 units) of Mathematics Core units, and 24 credit points (2 units) of Core Option units selected from an approved list.

(b) 120 credit points (10 units) of Major Core units, comprising from a choice of one (1) Major in either:

- Applied and Computational Mathematics;
-
- Decision Science; or
-
- Statistical Science.

(c)

96 credit points of complementary studies comprising of either a Second Major (8 unit set) or two Minors (4 unit set each).

Professional Recognition

Professional recognition can be found in the individual majors of the Bachelor of Mathematics (MS01).

Pathways to Further Study

The QUT Bachelor of Mathematics is located at Level 7 of the Australian Qualifications Framework (AQF). Eligible graduates may continue their studies in this discipline with an additional honours year in (MS10) Bachelor of Mathematics (Honours).

Bachelor of Mathematics (Applied and Computational Mathematics)

Handbook

Year	2017
QUT code	MS01
CRICOS	049433D
Duration (full-time)	3 years
Duration (part-time domestic)	6 years
OP	6
Rank	89
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9200 per year full-time (96 credit points)
International fee (indicative)	2017: $28200 per year full-time (96 credit points)
Total credit points	288
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Associate Professor Tim Moroney; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Dr Qianqian Yang (SEM-1 2017); TBA (SEM-2 2017) +61 7 3138 8822 sef.enquiry@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended Study: Maths C.

International Subject prerequisites

- Maths B

Recommended Study: Maths C

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Overview

The Applied and Computational Mathematics major provides high quality learning for students who want to combine their studies in mathematics with considerable involvement in real-world applications and computational simulations. The major introduces you to a wide range of concepts in mathematical foundations, modelling and computational methods, and provides strong links between theory and application. You will investigate underlying mathematical theory to see how it can be applied to real-world scenarios from many fields of study including the physical and chemical sciences, biology, engineering and the social sciences. You will also develop computational solution and simulation methods to couple with modelling skills in order to investigate large-scale applied problems.

Course Design

Your QUT Bachelor of Mathematics degree consists of 288 credit points (24 units) arranged as follows:

(a) 72 credit points (6 units) of Core units, which are further divided into 48 credit points (4 units) of Mathematics Core units, and 24 credit points (2 units) of Core Option units selected from an approved list.
(b) 120 credit points (10 units) of Major Core units
(c) 96 credit points of complementary studies comprising of either a Second Major (8 unit set) or two Minors (4 unit set each).

Mathematics Core Units

These units give you the grounding in mathematical theory and practice upon which your major units will build, and also provide an introductory taste of each of the three majors: applied and computational mathematics; decision science; and statistical science.

Core Option Units List

You may choose from a wide variety of introductory units from other disciplines offered at QUT, or you may choose additional mathematics units. The additional mathematics units include a unit specially designed to assist students without a background of successful study in Mathematics C at high school; an alternative unit aimed at high achieving students that explores some interesting and unusual aspects of mathematics in some detail; and a unit introducing the field of computational and simulation science which combines mathematics, science and computing to simulate real-world problems.

Major Units

Your major is your area of specialisation, in which you will acquire in-depth knowledge and expertise, preparing you for your entry into the workforce or for further study. All majors share the same introductory and advanced units in algebra and calculus, meaning you do not need to decide on your major upfront.

Complementary Studies

Applied and Computational Mathematics Major students may elect to undertake a Second Major (8 unit set) or two Minors (4 unit set each)

Second Major:

A choice of one second major from:

- Decision Science
- Statistical Science
- Computational and Simulation Science

- Accountancy
- Applied Economics and Finance
- Logistics Management
- Biological Sciences
- Chemistry
- Earth Science
- Environmental Science
- Physics

Minors:

A choice of two minors from:

- Decision Science
- Statistical Science
- Discrete Mathematics
- Computational and Simulation Science
- Biological Sciences
- Chemistry
- Earth Science
- Environmental Science
- Physics
- International exchange
- University Wide Minors

Career Outcomes

As a graduate of the Bachelor of Mathematics (Applied and Computational Mathematics) you will find employment opportunities across a wide range of areas, such as finance, investment, information technology, environmental management, health, marketing, logistics, defence, medicine, education and research. In addition to your knowledge and abilities in mathematics, you will also be highly valued for your analytical and problem-solving skills.

Professional Recognition

Graduates are eligible for membership in the Australian Mathematical Society (AMS), and ANZIAM.

Domestic Course structure

Your QUT Bachelor of Mathematics degree consists of 288 credit points (24 units) arranged as follows:

- 72 credit points (6 units) of core units, which are further divided into 48 credit points (4 units) of mathematics core units, and 24 credit points (2 units) of core option units selected from an approved list
- 120 credit points (10 units) of major units
- 96 credit points of complementary studies comprising of either a second major (8 unit set) or two minors (4 unit set each)

Mathematics core units

These units give you the grounding in mathematical theory and practice upon which your major units will build, and also provide an introductory taste of each of the three majors: applied and computational mathematics; decision science; and statistical science.

Core option units

You may choose from a wide variety of introductory units from other disciplines offered at QUT, or you may choose additional mathematics units. The additional mathematics units include a unit specially designed to assist students without a background of successful study in Mathematics C at high school; an alternative unit aimed at high achieving students that explores some interesting and unusual aspects of mathematics in some detail; and a unit introducing the field of computational and simulation science which combines mathematics, science and computing to simulate real-world problems.

Major units

Your major is your area of specialisation, in which you will acquire in-depth knowledge and expertise, preparing you for your entry into the workforce or for further study. All majors share the same introductory and advanced units in algebra and calculus, meaning you do not need to decide on your major until your second year of study.

Second major or minors

You may choose to undertake a second major: an eight-unit set in which you will acquire a significant depth of knowledge and expertise in an area to complement your major. You may choose a second major in decision science, statistical science, computational and simulation science, accountancy, applied economics and finance, logistics management, physics, chemistry, biological science, earth science or environmental science.

Alternatively you may choose to undertake two minors: four-unit sets with intermediate to advanced level content which extend or supplement studies in your major. Minors are available from a range of inter- and intra-faculty disciplines, as well as experiential minors such as international exchange.

International Course structure

Course Design

Your QUT Bachelor of Mathematics degree consists of 288 credit points (24 units) arranged as follows:

- 72 credit points (6 units) of Core units, which are further divided into 48 credit points (4 units) of Mathematics Core units, and 24 credit points (2 units) of Core Option units selected from an approved list.
- 120 credit points (10 units) of Major units.
- 96 credit points of complementary studies comprising of either a Second Major (8 unit set) or two Minors (4 unit set each).

Mathematics Core Units

These units give you the grounding in mathematical theory and practice upon which your major units will build, and also provide an introductory taste of each of the three majors: applied and computational mathematics; decision science; and statistical science.

Core Option Units

You may choose from a wide variety of introductory units from other disciplines offered at QUT, or you may choose additional mathematics units. The additional mathematics units include a unit specially designed to assist students without a background of successful study in Mathematics C at high school; an alternative unit aimed at high achieving students that explores some interesting and unusual aspects of mathematics in some detail; and a unit introducing the field of computational and simulation science which combines mathematics, science and computing to simulate real-world problems.

Bachelor of Mathematics (Applied and Computational Mathematics)

Major Units

Your major is your area of specialisation, in which you will acquire in-depth knowledge and expertise, preparing you for your entry into the workforce or for further study. All majors share the same introductory and advanced units in algebra and calculus, meaning you do not need to decide on your major until your second year of study.

Second Major or Minors

You may choose to undertake a second major: an 8 unit set in which you will acquire a significant depth of knowledge and expertise in an area to complement your major. You may choose a second major in applied and computational mathematics, decision science, statistical science, computational and simulation science, accountancy, applied economics and finance, logistics management, physics, chemistry, biological science, earth science or environmental science.

Alternatively you may choose to undertake two minors: 4 unit sets with intermediate to advanced level content which extend or supplement studies in your major. Minors are available from a range of inter- and intra-faculty disciplines, as well as experiential minors such as international exchange.

Sample Structure

Semesters

Code	Title
Year 1, Semester 1	
MXB101	Probability and Stochastic Modelling 1
MXB102	Abstract Mathematical Reasoning
MXB103	Introductory Computational Mathematics
Core Unit Option*	
Year 1, Semester 2	
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB107	Introduction to Statistical Modelling
Core Unit Option*	
Year 2, Semester 1	
MXB201	Advanced Linear Algebra
MXB221	Ordinary Differential Equations
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 2, Semester 2	
MXB202	Advanced Calculus
MXB222	Computational Linear Algebra
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
MXB321	Applied Transport Theory
MXB322	Partial Differential Equations
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 2	
MXB323	Dynamical Systems
MXB324	Computational Fluid Dynamics
2nd Major/Minor unit	
2nd Major/Minor unit	
NOTE:	
*Core Unit Options may be taken in any semester - depending on choice of Options/ 2nd Major/ Minors	

Bachelor of Mathematics (Decision Science)

Handbook

Year	2017
QUT code	MS01
CRICOS	049433D
Duration (full-time)	3 years
Duration (part-time domestic)	6 years
OP	6
Rank	89
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9200 per year full-time (96 credit points)
International fee (indicative)	2017: $28200 per year full-time (96 credit points)
Total credit points	288
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Associate Professor Tim Moroney; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Associate Professor Paul Corry +61 7 3138 8822 sef.enquiry@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended Study: Maths C.

International Subject prerequisites

- Maths B

Recommended Study: Maths C

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Overview

Decision science is a mathematical discipline that considers how to make appropriate and better decisions in complex decision-making problems. It deals with how best to design, operate and/or predict behaviour of complex systems like people, machinery, materials and money in industry, business, finance, education, government and defence. The Decision Science major encompasses the study of quantitative techniques relevant to decision-making in its broadest sense. You will employ a problem-solving approach, using advanced analytical methods such as operations research, financial mathematics, stochastic and mathematical modelling, and mathematical optimisation. Along the way you will also use a variety of software and improve your information technology skills. Because of its emphasis on human-technology interaction and its focus on practical applications, Decision Science overlaps with other disciplines, notably industrial engineering and operations management, economics and finance. This is a multi-disciplinary field.

The coursework also introduces you to different industries and processes that greatly contribute to the economy and environment of nations around the world. These include manufacturing and production, management, health care, finance and economics, goods and services, infrastructure, transportation and logistics, mining, defence, etc. This study area provides a foundation for a variety of careers, and further study.

There is a strong emphasis on:

Sample Structure

Semesters

Code	Title
Year 1, Semester 1	
MXB101	Probability and Stochastic Modelling 1
MXB102	Abstract Mathematical Reasoning
MXB103	Introductory Computational Mathematics
Core Unit Option*	
Year 1, Semester 2	
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB107	Introduction to Statistical Modelling
Core Unit Option*	
Year 2, Semester 1	
MXB201	Advanced Linear Algebra
MXB232	Introduction to Operations Research
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 2, Semester 2	
MXB202	Advanced Calculus
2nd Major/Minor unit	
2nd Major/Minor unit	
CAB201	Programming Principles
or	
MXB241	Probability and Stochastic Modelling 2

Bachelor of Mathematics (Decision Science)

Year 3, Semester 1	
MXB332	Optimisation Modelling
MXB341	Statistical Inference
MXB351	Coding Theory and Graph Theory
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 2	
MXB334	Operations Research for Stochastic Processes
MXB335	Advanced Optimisation Modelling
2nd Major/Minor unit	
2nd Major/Minor unit	
NOTE:	
*Core Unit Options may be taken in any semester - depending on choice of Options/ 2nd Major/ Minors	

Bachelor of Mathematics (Statistical Science)

Handbook

Year	2017
QUT code	MS01
CRICOS	049433D
Duration (full-time)	3 years
Duration (part-time domestic)	6 years
OP	6
Rank	89
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9200 per year full-time (96 credit points)
International fee (indicative)	2017: $28200 per year full-time (96 credit points)
Total credit points	288
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Associate Professor Tim Moroney; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Dr Chris Drovandi +61 7 3138 8822 sef.enquiry@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended Study: Maths C.

International Subject prerequisites

- Maths B

Recommended Study: Maths C

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Overview

The Statistical Science major will provide you with the methodology for analysing data using empirical, theoretical and computational tools. You will discover complex statistical techniques and concepts through applications and datasets from the real world, providing strong links between theory and application. Many of our academics are world leaders in research and have strong industry ties that ensure the relevance of teaching material and high-quality learning experiences. The major will provide you with a fundamental and thorough understanding of statistics and statistical methodology, and the ability to apply such quantitative skills in real-world scenarios. Thus we aim to prepare you for a career in industry, government and/or research.

Course Design

Your QUT Bachelor of Mathematics degree consists of 288 credit points (24 units) arranged as follows:

(a) 72 credit points (6 units) of Core units, which are further divided into 48 credit points (4 units) of Mathematics Core units, and 24 credit points (2 units) of Core Option units selected from an approved list.
(b) 120 credit points (10 units) of Major Core units
(c) 96 credit points of complementary studies comprising of either a Second Major (8 unit set) or two Minors (4 unit set each).

Mathematics Core Units

These units give you the grounding in mathematical theory and practice upon which your major units will build, and also provide an introductory taste of each of the three majors: applied and computational mathematics; decision science; and statistical science.

Core Option Units List

You may choose from a wide variety of introductory units from other disciplines offered at QUT, or you may choose additional mathematics units. The additional mathematics units include a unit specially designed to assist students without a background of successful study in Mathematics C at high school; an alternative unit aimed at high achieving students that explores some interesting and unusual aspects of mathematics in some detail; and a unit introducing the field of computational and simulation science which combines mathematics, science and computing to simulate real-world problems.

Major Units

Your major is your area of specialisation, in which you will acquire in-depth knowledge and expertise, preparing you for your entry into the workforce or for further study. All majors share the same introductory and advanced units in algebra and calculus, meaning you do not need to decide on your major upfront.

Complementary Studies

Statistical Science Major students may elect to undertake a Second Major (8 unit set) or two Minors (4 unit set each)

Second Major:

A choice of one second major from:

- Applied and Computational Mathematics
- Decision Science
- Accountancy
- Applied Economics and Finance

-
- Logistics Management
-
- Biological Sciences
-
- Chemistry
-
- Earth Science
-
- Environmental Science
-
- Physics

Minors:

A choice of two minors from:

- Applied and Computational Mathematics
-
- Decision Science
-
- Discrete Mathematics
-
- Computational and Simulation Science
-
- Biological Sciences
-
- Chemistry
-
- Earth Science
-
- Environmental Science
-
- Physics
-
- International exchange
-
- University Wide Minors

Career Outcomes

Career outcomes for graduates of the Bachelor of Mathematics (Statistical Science) include data analyst, quantitative analyst, researcher, risk analyst, and statistician. Positions of this nature are often found with employers such as the Australian Bureau of Statistics, Queensland Treasury, state and Commonwealth governments, financial institutions, CSIRO, insurance companies, medical companies.

Professional Recognition

Graduates are eligible for membership in the Statistical Society of Australia

Domestic Course structure

Your QUT Bachelor of Mathematics degree consists of 288 credit points (24 units) arranged as follows:

- 72 credit points (6 units) of core units, which are further divided into 48 credit points (4 units) of mathematics core units, and 24 credit points (2 units) of core option units selected from an approved list
- 120 credit points (10 units) of major units
- 96 credit points of complementary studies comprising of either a second major (8 unit set) or two minors (4 unit set each)

Mathematics core units

These units give you the grounding in mathematical theory and practice upon which your major units will build, and also provide an introductory taste of each of the three majors: applied and computational mathematics; decision science; and statistical science.

Core option units

You may choose from a wide variety of introductory units from other disciplines offered at QUT, or you may choose additional mathematics units. The additional mathematics units include a unit specially designed to assist students without a background of successful study in Mathematics C at high school; an alternative unit aimed at high achieving students that explores some interesting and unusual aspects of mathematics in some detail; and a unit introducing the field of computational and simulation science which combines mathematics, science and computing to simulate real-world problems.

Major units

Your major is your area of specialisation, in which you will acquire in-depth knowledge and expertise, preparing you for your entry into the workforce or for further study. All majors share the same introductory and advanced units in algebra and calculus, meaning you do not need to decide on your major until your second year of study.

Second major or minors

You may choose to undertake a second major: an eight-unit set in which you will acquire a significant depth of knowledge and expertise in an area to complement your major. You may choose a second major in applied and computational mathematics, decision science, computational and simulation science, accountancy, applied economics and finance, logistics management, physics, chemistry, biological science, earth science or environmental science.

Alternatively you may choose to undertake two minors: four-unit sets with intermediate to advanced level content which extend or supplement studies in your major. Minors are available from a range of inter- and intra-faculty disciplines, as well as experiential minors such as international exchange.

International Course structure

Course Design

Your QUT Bachelor of Mathematics degree consists of 288 credit points (24 units) arranged as follows:

- 72 credit points (6 units) of Core units, which are further divided into 48 credit points (4 units) of Mathematics Core units, and 24 credit points (2 units) of Core Option units selected from an approved list.
- 120 credit points (10 units) of Major units.
- 96 credit points of complementary studies comprising of either a Second Major (8 unit set) or two Minors (4 unit set each).

Mathematics Core Units

These units give you the grounding in mathematical theory and practice upon which your major units will build, and also provide an introductory taste of each of the three majors: applied and computational mathematics; decision science; and statistical science.

Core Option Units

You may choose from a wide variety of introductory units from other disciplines offered at QUT, or you may choose additional mathematics units. The additional mathematics units include a unit specially designed to assist students without a background of successful study in Mathematics C at high school; an alternative unit aimed at high achieving students that explores some interesting and unusual aspects of mathematics in some detail; and a unit introducing the field of computational and simulation science which combines mathematics, science and computing to simulate real-world problems.

Major Units

Your major is your area of specialisation, in which you will acquire in-depth knowledge and expertise, preparing you for your entry into the workforce or for

further study. All majors share the same introductory and advanced units in algebra and calculus, meaning you do not need to decide on your major until your second year of study.

Second Major or Minors

You may choose to undertake a second major: an 8 unit set in which you will acquire a significant depth of knowledge and expertise in an area to complement your major. You may choose a second major in applied and computational mathematics, decision science, statistical science, computational and simulation science, accountancy, applied economics and finance,
logistics management, physics, chemistry, biological science, earth science or environmental science.

Alternatively you may choose to undertake two minors: 4 unit sets with intermediate to advanced level content which extend or supplement studies in your major. Minors are available from a range of inter- and intra-faculty disciplines, as well as experiential minors such as international exchange.

Sample Structure

Semesters

Code	Title
Year 1, Semester 1	
MXB101	Probability and Stochastic Modelling 1
MXB102	Abstract Mathematical Reasoning
MXB103	Introductory Computational Mathematics
Core Unit Option*	
Year 1, Semester 2	
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB107	Introduction to Statistical Modelling
Core Unit Option*	
Year 2, Semester 1	
MXB201	Advanced Linear Algebra
MXB242	Regression and Design
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 2, Semester 2	
MXB202	Advanced Calculus
MXB241	Probability and Stochastic Modelling 2
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
MXB341	Statistical Inference
MXB342	Statistical Techniques
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 2	
MXB343	Modelling Dependent Data
MXB344	Generalised Linear Models
2nd Major/Minor unit	
2nd Major/Minor unit	
NOTE:	
*Core Unit Options may be taken in any semester - depending on choice of Options/ 2nd Major/ Minors	

Bachelor of Applied Science

Handbook

Year	2017
QUT code	SC01
CRICOS	003502J
Duration (full-time)	3 years
Duration (part-time domestic)	6 years
Rank	72
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	288
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July This course has been replaced by ST01 Bachelor of Science. However if you are offered a second or third year place you will be admitted to this course instead as only the first year of ST01 Bachelor of Science will be offered in 2013.
Int. Start Months	February, July Conditions apply for July entry.
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Marion Bateson; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (English (4, SA) and Maths B (4, SA)). Recommended Study: At least one of Chemistry, Physics, Biology, Earth Science or Maths C.

International Subject prerequisites

- Maths B
- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies (English (4, SA) and Maths B (4, SA)).

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

IMPORTANT NOTICE

This course is only available for continuing students in Bachelor of Applied Science and for 2013 commencing students meeting 96cp Science Advanced Standing 1st year units. New students should refer to ST01 Bachelor of Science. Please contact sef.enquiry@qut.edu.au for any enquiries.

Forensic Science: Is currently under review. Students wishing to select and enrol into the Forensic Science major will need to discuss this first with the Course Coordinator Dr Marion Bateson .

Design your own degree

You have a broad range of options to choose from and the flexibility to create your own personal science degree program. If you are not sure of your career direction, don't worry because this decision can be delayed until after you have sampled a range of science disciplines during your first year of study. The 24 unit degree comprises:

First-year program (eight units)
The first year is designed to give you experience in a wide range of basic science disciplines, consisting of three general foundation units, one maths unit, and four major foundation units. Some of these foundation sciences, such as mathematics and chemistry, will underpin all of your later studies. All of the first-year studies are designed to challenge and engage you in the wonders of science, regardless of your prior exposure to science studies. You should seek advice from our expert staff of your choice of major to suit your interests and capabilities, and your personal and career aspirations.

Major (eight units)
Choose your main specialisation study area (your major) from the list below. This will form the basis for your qualification, for example Bachelor of Applied Science (Biotechnology). As QUT courses are designed in close consultation with industry you will be eligible for the relevant professional accreditation when you graduate. The major areas available are:

Bachelor of Applied Science (Biotechnology)

Handbook

Year	2017
QUT code	SC01
CRICOS	003502J
Duration (full-time)	3 years
Duration (part-time domestic)	6 years
Rank	72
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	288
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July This course has been replaced by ST01 Bachelor of Science. However if you are offered a second or third year place you will be admitted to this course instead as only the first year of ST01 Bachelor of Science will be offered in 2013.
Int. Start Months	February, July Conditions apply for July entry
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Marion Bateson; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Dr Marion Bateson +61 7 3138 1269 (Alternate phone: +61 7 3138 8822) m.bateson@qut.edu.au (Alternate email: sef.enquiry@qut.edu.au)

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (English (4, SA) and Maths B (4, SA)). Recommended Study: At least one of Chemistry, Physics, Biology, Earth Science or Maths C.

International Entry requirements

Recommended Study

Biological Science and Chemistry.

International Subject prerequisites

- Maths B
- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies (English (4, SA) and Maths B (4, SA)).

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

IMPORTANT NOTICE

As of 2013, this course will only be available for continuing Bachelor of Applied Science students and those students who are commencing in 2013 with advanced standing of 96 credit points of 1st year units.
New students - please refer to ST01 Bachelor of Science. Please contact sef.enquiry@qut.edu.au for any enquiries.

Career Outcomes

As a QUT biotechnology graduate you will have a wide range of exciting career opportunities available to you across a number of existing and emerging global industries. New career opportunities include nanotechnology, proteomics, materials science, molecular farming and bioinformatics. Our biotechnology graduates find career opportunities in medical and agricultural research, product development or marketing, hospitals and diagnostic laboratories, in teaching and in many areas of government and private industry.

Professional Recognition

Graduates are eligible for membership of AusBiotech Ltd, Australian Society for Biochemistry and Molecular Biology (ASBMB) and, depending on unit selection, Australian Society for Medical Research (ASMR) and the Australian Society for Microbiology (ASM).

Domestic Course structure

Year 1
You will undertake introductory core studies in a range of scientific areas including life sciences, chemistry, physics, mathematics and environmental science to give you a solid foundation for your future studies. You will also be introduced to the structure and function of DNA, RNA and proteins, and their role in cell function. Following these introductory studies you should be in a position to confirm your choice of a major area of study.

Year 2
You will develop a more detailed understanding of biochemical principles, cell biology and the structure and function of biomolecules. A strong focus is placed on developing practical skills in molecular biology and cell culture that will underpin your future studies. You will have access to real-world molecular biology laboratories with modern equipment and highly skilled tutors. You will also be introduced to bioinformatics through hands-on computer-based exercises.

Year 3
You will further develop both theoretical and practical skills in DNA manipulation and genetic engineering as well as advanced bioinformatics. You will also focus on specific applications in biotechnology including current advances in diagnostics and detection, cell culture and tissue engineering in both animal and plant systems, functional genomics, proteomics and microarray technology. Teaching approaches at this level will encourage critical thinking, and problem-based learning, and you will undertake a mix of independent activities and group

work.

International Course structure

Year 1
You will undertake introductory core studies in a range of scientific areas including life sciences, chemistry, physics, mathematics and environmental science to give you a solid foundation for your future studies. You will also be introduced to the structure and function of DNA, RNA and proteins, and their role in cell function. Following these introductory studies you should be in a position to confirm your choice of a major area of study.

Year 2
You will develop a more detailed understanding of biochemical principles, cell biology and the structure and function of biomolecules. A strong focus is placed on developing practical skills in molecular biology and cell culture that will underpin your future studies. You will have access to real-world molecular biology laboratories with modern equipment and highly skilled tutors. You will also be introduced to bioinformatics through hands-on computer-based exercises.

Year 3
You will further develop both theoretical and practical skills in DNA manipulation and genetic engineering as well as advanced bioinformatics. You will also focus on specific applications in biotechnology including current advances in diagnostics and detection, cell culture and tissue engineering in both animal and plant systems, functional genomics, proteomics and microarray technology. Teaching approaches at this level will encourage critical thinking, and problem-based learning, and you will undertake a mix of independent activities and group work.

Bachelor of Applied Science (Chemistry)

Handbook

Year	2017
QUT code	SC01
CRICOS	003502J
Duration (full-time)	3 years
Duration (part-time domestic)	6 years
Rank	72
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	288
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July This course has been replaced by ST01 Bachelor of Science. However if you are offered a second or third year place you will be admitted to this course instead as only the first year of ST01 Bachelor of Science will be offered in 2013.
Int. Start Months	February, July Conditions apply for July entry
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Marion Bateson; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Associate Professor Eric Waclawik +61 7 3138 2579 (Alternate phone: +61 7 3138 8822) e.waclawik@qut.edu.au (Alternate email: sef.enquiry@qut.edu.au)

Domestic Entry requirements Advanced standing entry only

This course has been replaced by ST01 Bachelor of Science. However if you are offered a second or third year place you will be admitted to this course instead as only the first year of ST01 Bachelor of Science will be offered in 2013.

Deferment

Whilst deferment available it is mostly likely deferred students will commence ST01 Bachelor of Science in 2014.

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (English (4, SA) and Maths B (4, SA)). Recommended Study: At least one of Chemistry, Physics, Biology, Earth Science or Maths C.

International Entry requirements

Recommended Study

At least one of the sciences.

International Subject prerequisites

- Maths B
- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies (English (4, SA) and Maths B (4, SA)).

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

IMPORTANT NOTICE

As of 2013, this course will only be available for continuing Bachelor of Applied Science students and those students who are commencing in 2013 with advanced standing of 96 credit points of 1st year units.
New students - please refer to ST01 Bachelor of Science. Please contact sef.enquiry@qut.edu.au for any enquiries.

Career Outcomes

Among a diverse range of employment opportunities, you may become an industrial chemist, materials scientist, environmental chemist, quality control analyst, laboratory supervisor, food chemistry, or an organic/inorganic chemist. Your interactions with QUT experts in current fields of interest including drug development, clay and minerals chemistry, renewable energy sources, nanotechnology, environmental monitoring, and applications of modern analytical instrumentation may lead to careers in these areas.

QUT graduates are sought after by police and other forensics laboratories because of their extensive practical training using modern analytical instrumentation.

With the addition of a postgraduate diploma in education, you may wish to pursue opportunities in the teaching profession.

Professional Recognition

Graduates completing the chemistry major with the chemistry for industry second major or forensic science major are eligible for membership of the Royal Australian Chemical Insitute (RACI).

Domestic Course structure

Year 1
You will undertake introductory core studies in a range of scientific areas including life sciences, chemistry, physics, mathematics and environmental science to give you a solid foundation for your future studies. If you are taking the chemistry for industry second major you will be provided with opportunities to develop further laboratory skills. If you are taking chemistry with forensic science, you will also cover introductory life science topics that prepare you for important tasks like DNA profiling.

Year 2
You will begin more specialised study of the core chemistry sub-disciplines of analytical inorganic, organic and physical

chemistry. In the chemistry for industry second major you will begin extensive studies in analytical chemistry, chemical and nanotechnologies. Problem solving and the development of critical thinking will be emphasised. You should expect plenty of practical work and hands-on experience. The communication skills, generic scientific skills, and report preparation tools you will learn at QUT will be vital to your future employment.

Year 3
You will tackle more challenging advanced concepts in the core sub-disciplines of chemical science. In this second major, you will have the advantage of field trips to major industrial sites. All third year chemistry studies will undertake a one-semester research project under the guidance of experienced staff. Students will be trained in start-of-the-art techniques and will have the opportunity to pursue a field of interest to them. Whether you are seeking your first job or contemplating higher research degree studies, you will have access to advice from qualified professionals.

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International Course structure

Year 1
You will undertake introductory core studies in a range of scientific areas including life sciences, chemistry, physics, mathematics and environmental science to give you a solid foundation for your future studies. If you are taking the chemistry for industry second major you will be provided with opportunities to develop further laboratory skills. If you are taking chemistry with forensic science, you will also cover introductory life science topics that prepare you for important tasks like DNA profiling.

Year 2
You will begin more specialised study of the core chemistry sub-disciplines of analytical inorganic, organic and physical chemistry. In the chemistry for industry second major you will begin extensive studies in analytical chemistry, chemical and nanotechnologies. Problem solving and the development of critical thinking will be emphasised. You should expect plenty of practical work and hands-on experience. The communication skills, generic scientific skills, and report preparation tools you will learn at QUT will be vital to your future employment.

Year 3
You will tackle more challenging advanced concepts in the core sub-disciplines of chemical science. In this second major, you will have the advantage of field trips to major industrial sites. All third year chemistry studies will undertake a one-semester research project under the guidance of experienced staff. Students will be trained in start-of-the-art techniques and will have the opportunity to pursue a field of interest to them. Whether you are seeking your first job or contemplating higher research degree studies, you will have access to advice from qualified professionals.

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Bachelor of Applied Science (Geoscience)

Handbook

Year	2017
QUT code	SC01
CRICOS	003502J
Duration (full-time)	3 years
Duration (part-time domestic)	6 years
Rank	72
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	288
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July This course has been replaced by ST01 Bachelor of Science. However if you are offered a second or third year place you will be admitted to this course instead as only the first year of ST01 Bachelor of Science will be offered in 2013.
Int. Start Months	February, July Conditions apply for July entry
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Marion Bateson; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Dr Craig Sloss +61 7 3138 2610 (Alternate phone: +61 7 3138 8822) c.sloss@qut.edu.au (Alternate email: sef.enquiry@qut.edu.au)

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (English (4, SA) and Maths B (4, SA)). Recommended Study: At least one of Chemistry, Physics, Biology, Earth Science or Maths C.

International Entry requirements

Recommended Study

At least one of the sciences.

International Subject prerequisites

- Maths B
- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies (English (4, SA) and Maths B (4, SA)).

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

IMPORTANT NOTICE

As of 2013, this course will only be available for continuing Bachelor of Applied Science students and those students who are commencing in 2013 with advanced standing of 96 credit points of 1st year units.
New students - please refer to ST01 Bachelor of Science. Please contact sef.enquiry@qut.edu.au for any enquiries.

Career Outcomes

Employment opportunities exist within a variety of government organisations and consulting companies with work ranging from field geologists to research scientists. Exploration geologists are employed by mining and hydrocarbon exploration companies where they may be involved in underground geological mapping, evaluation of ore reserves, production control, or exploration for new mineral or oil and gas deposits. They may be based in remote settings or major cities. Graduates may work in computing, data modelling and remote sensing in any of these areas.

An honours degree has traditionally been required by many employers including the larger mining and exploration companies.

Professional Recognition

Graduates are eligible for membership of the Australasian Institute of Mining and Metallurgy (AusIMM), Australian Institute of Geoscientists (AIG), and the Geological Society of Australia (GSA).

Domestic Course structure

Year 1
You will undertake introductory core studies in a range of scientific areas including life sciences, chemistry, physics, mathematics and environmental science to give you a solid foundation for your future studies. You will also select specific units that will help you decide whether to pursue career paths in exploration or environmental geoscience. Following these introductory studies you should be in a position to confirm your choice of major area of study.

Year 2
You will learn fundamental concepts and gain practical experience in identifying and analysing earth materials, both in the laboratory and in the field. At the same time, you will be introduced to the geological processes that govern the evolution of the earth's surface (sedimentary environments). You will then be introduced to rocks and processes that occur deeper within the earth (igneous and metamorphic realms) and longer term geological processes including structural deformation and stratigraphic evolution. The year culminates with you being able to solve real-world geological problems based on data you collect in the field.

Year 3
You will receive more advanced training in the fundamental areas of petrology and geochemistry with the addition of exploration geophysics and specialised units relevant to the mining, coal, petroleum and/or hydrogeology-environmental industries. You will be

introduced to techniques and case studies that will prepare you for a wide variety of career paths. At the same time, you will learn new skills in subsurface analysis and mapping, remote sensing, and spatial analysis, including computer-based geographical information systems.

International Course structure

Year 1
You will undertake introductory core studies in a range of scientific areas including life sciences, chemistry, physics, mathematics and environmental science to give you a solid foundation for your future studies. You will also select specific units that will help you decide whether to pursue career paths in exploration or environmental geoscience. Following these introductory studies you should be in a position to confirm your choice of major area of study.

Year 2
You will learn fundamental concepts and gain practical experience in identifying and analysing earth materials, both in the laboratory and in the field. At the same time, you will be introduced to the geological processes that govern the evolution of the earth's surface (sedimentary environments). You will then be introduced to rocks and processes that occur deeper within the earth (igneous and metamorphic realms) and longer term geological processes including structural deformation and stratigraphic evolution. The year culminates with you being able to solve real-world geological problems based on data you collect in the field.

Year 3
You will receive more advanced training in the fundamental areas of petrology and geochemistry with the addition of exploration geophysics and specialised units relevant to the mining, coal, petroleum and/or hydrogeology-environmental industries. You will be introduced to techniques and case studies that will prepare you for a wide variety of career paths. At the same time, you will learn new skills in subsurface analysis and mapping, remote sensing, and spatial analysis, including computer-based geographical information systems.

Bachelor of Applied Science (Physics)

Handbook

Year	2017
QUT code	SC01
CRICOS	003502J
Duration (full-time)	3 years
Duration (part-time domestic)	6 years
Rank	72
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	288
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July This course has been replaced by ST01 Bachelor of Science. However if you are offered a second or third year place you will be admitted to this course instead as only the first year of ST01 Bachelor of Science will be offered in 2013.
Int. Start Months	February, July Conditions apply for July entry
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Marion Bateson; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Dr Stephen Hughes +61 7 3138 2327 (Alternate phone: +61 7 3138 8822) sw.hughes@qut.edu.au (Alternate email: sef.enquiry@qut.edu.au)

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (English (4, SA) and Maths B (4, SA)). Recommended Study: At least one of Chemistry, Physics, Biology, Earth Science or Maths C.

International Entry requirements

Recommended Study

Maths C

International Subject prerequisites

- Maths B
- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies (English (4, SA) and Maths B (4, SA)).

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

IMPORTANT NOTICE

As of 2013, this course will only be available for continuing Bachelor of Applied Science students and those students who are commencing in 2013 with advanced standing of 96 credit points of 1st year units.
New students - please refer to ST01 Bachelor of Science. Please contact sef.enquiry@qut.edu.au for any enquiries.

Career Outcomes

Physicists are an asset to almost any industry. Employment areas of QUT physics graduates are very wide-ranging. These include research and development departments of large manufacturing companies, mining and exploration companies, research institutions such as the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and the Defence Science and Technology Organisation (DSTO), government bodies such as the Bureau of Meteorology, Environmental Protection Agencies and health departments, schools, universities and hospitals. Broad training in data analysis and problem-solving skills also make physicists well suited to management and consulting roles in a range of technology-based industries.

Professional Recognition

Graduates are eligible for membership of the Australian Institute of Physics (AIP).

Domestic Course structure

Year 1
You will be introduced to a broad range of physics topics including mechanics, electricity, optics, waves, electromagnetism and atomic physics. Mathematics units will provide you with the skills and background knowledge required to support more advanced study in second and third years. You may choose to undertake a foundation unit in one of the other scientific disciplines to broaden your knowledge. You also have the flexibility to select two elective units to add another dimension to your science knowledge.

Year 2
You will begin to study specialist areas of physics at advanced level. Topics include electronics, instrumentation, radiation physics, thermodynamics and solid-state physics. Study of a secondary area of specialisation (second major) also begins. Second majors offered to physics students include astrophysics, mathematics, geoscience, games technology and music.

Year 3
You will proceed to further specialist areas including quantum physics, condensed matter physics, statistical mechanics and advanced electromagnetism. Your studies in experimental physics will help you develop data collection and data processing skills, and allow you to experience the methods used and to acquire the skills required to undertake research.

International Course structure

Year 1
You will be introduced to a broad range of physics topics including mechanics, electricity, optics, waves, electromagnetism and atomic physics. Mathematics units will provide you with the skills and background knowledge required to support more advanced study in second and third years. You may choose to undertake a foundation unit in one of the other scientific disciplines to broaden your knowledge. You also have the flexibility to select two elective units to add another dimension to your science knowledge.

Year 2
You will begin to study specialist areas of physics at advanced level. Topics include electronics, instrumentation, radiation physics, thermodynamics and solid-state physics. Study of a secondary area of specialisation (second major) also begins. Second majors offered to physics students include astrophysics, mathematics, geoscience, games technology and music.

Year 3
You will proceed to further specialist areas including quantum physics, condensed matter physics, statistical mechanics and advanced electromagnetism. Your studies in experimental physics will help you develop data collection and data processing skills, and allow you to experience the methods used and to acquire the skills required to undertake research.

Bachelor of Science

Handbook

Year	2017
QUT code	ST01
CRICOS	077696D
Duration (full-time)	3 years
Duration (part-time domestic)	6 years
OP	13
Rank	71
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9000 per year full-time (96 credit points)
International fee (indicative)	2017: $32300 per year full-time (96 credit points)
Total credit points	288
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Graham Johnson; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended Study: At least one of Chemistry, Physics, Biology, Earth Science, Geography or Maths C.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended Study: At least one of Chemistry, Physics, Biology, Earth Science, Geography or Maths C.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Rules

1. To fulfil the requirements for the award of the Bachelor of Science degree, you must complete a total of at least 288 credit points, comprising at least 192 credit points of science units. The units completed for the award of the degree must include:

(a) the first year program as outlined in the course summary
(b) a major study
(c) a second major study or two minor areas of study

Major and second major studies are defined in terms of the discipline area and the academic level at which the units are offered.

Major
A major must be completed in one of the following discipline areas: biological sciences; chemistry; earth science; environmental science; physics. A major comprises 120 credit points of units at advanced level, including at least 48 credit points at the third level.

Second Major
A second major may be completed by selecting appropriate units from another major, or from the following additional discipline areas:
Human Biomolecular Science, Innovation and Entrepreneurship, Policy & Governance, Sustainable Environments for Health, Computational Science, Science Communication.

Minors and Extension Minors
Minors and Extension Minors are offered in the following disciplines:

Analytical Chemistry, Astrophysics, Cell and Molecular Biology, Human Health and Disease, Industrial Chemistry, Sustainable Environments for Health, Wildlife Biology, Marine Science, Plant Biotechnology, Genetics and Genomics, Forensic Science, Applied Ecology.

Non-Science: corporate IT systems, environmental engineering studies, ethics and human rights, foreign languages, games technology, management, marketing, music, nutrition, psychology etc.

Note: A second major comprises 96 credit points with at least 60 credit points at advanced level for the Science second majors and at least 48 credit points for the non-Science second majors. Major and second major studies may be taken in closely related discipline areas.

2. Optional (elective) units may be chosen from (a) ST01 majors/second majors other than those undertaken by a student, (b) other appropriate units offered by the Science and Engineering Faculty, and (c) units offered by other faculties.

3. Students are normally expected to complete the course in minimum time. A full-time student normally enrols in an average of 48 credit points per semester for six semesters and a part-time student normally enrols in 24 credit points per semester for 12 semesters. (A full-time student is one who is enrolled in 36 or more credit points per semester, whereas a part-time student is one who is enrolled in less than 36 credit points per semester.)

Notes on the Rules

1. For offerings in the Science and Engineering Faculty, the term advanced level refers to units in Schedules 2 and 3. For units offered outside the Science and Engineering Faculty, the term advanced level refers to units for which there is at least one prerequisite unit.

2. Level 2 and level 3 units are listed in Schedules 2 and 3 respectively according to their unit codes. For each unit, the major(s) and/or second major(s) in which the unit is offered are shown. It should be noted that not every advanced level unit offered in each major/second major is mandatory.

3. The major undertaken by a student will qualify the generic award title of BSc and will appear in the award title in parentheses. The general form of the award will therefore be: BSc(Major).

Domestic Course structure

Your science degree

At QUT you'll create your own personal science degree program of 24 units. During your first year of study you'll get to sample a range of core science disciplines, allowing you to decide on your major later.

Faculty core units

These six units give you an introduction to the principles of science the opportunity to learn by enquiry, and to broaden your understanding of the core sciences. You'll study four Faculty core units and two Optional units of your choice.

From your very first semester, you will collaborate with your peers and teaching staff in QUT's exciting new learning environments. You will explore real-world problems from multiple scientific perspectives and learn the tools of the trade. Depending on your choices, you may find yourself out in the field, working in the laboratory or learning about the impact of scientific discovery on people, policy, industry and the planet.

Working with data you have collected, you'll study how to apply fundamental methods of scientific practice, perform scientific analysis, and learn the tools to present your findings. You'll have the opportunity to explore and discover the range of career and professional outcomes available to you, so you can gain the most from your unit selection and the flexibility the Bachelor of Science has to offer.

Primary major

Your major is your main area of study for what you aspire to become professionally. You will receive in-depth knowledge and expertise within your chosen scientific discipline, preparing you for entry into the workforce or further study.

It comprises 10 units and there are five majors to choose from:

- biological sciences
- chemistry
- earth sciences
- environmental sciences
- physics.

Complementary study areas

This is where you make the degree your own, tailoring your studies to further match your individual career goals with a wide range of complementary study options available. You'll have the opportunity to develop sought-after professional skills, deepen your understanding of your major discipline, pursue an interest from across the university, or broaden your scientific understanding. You can even work with industry or study overseas to gain credit towards your degree.

You can choose: a Second major (eight units); or an Extended minor (four units) or Breadth minor (four units), plus either a Faculty minor (four units) or Breadth minor (four units).

Second major (eight units)

Choose a second area of study to complement your major, and develop a significant depth of knowledge and skills in two discipline areas. Experience another field, learn another academic methodology and experience interdisciplinary networking.

Choose a second Science discipline, or explore different perspectives which might include:

- computational science
- innovation
- science communication, or
- policy and governance.

Minor (four units)

You might prefer to expand the breadth and depth of your studies by adding to your chosen science major with two minors. Minors include:

Extension minor (four units)

Gain further insights and depth in your primary area of study. Intensify your chosen major to develop additional knowledge, skills and experience for your career in science.

Breadth minor (four units)

Broaden your studies to include minors from the list of science majors, second majors or from the list of University-wide minors.

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2

Code	Title
Year 1, Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
SEB115	Experimental Science 1
SEB116	Experimental Science 2
[As of 2015, 1st year units SEB101, SEB102 and SEB114 have been replaced by SEB104, SEB115 and SEB116.]	
Year 1, Semester 2	
Major Unit	
Major Unit	
Core Unit Option	
Core Unit Option	
Year 2, Semester 1	
Major Unit	
Major Unit	
2nd major or minor unit	
2nd major or minor unit	
Year 2, Semester 2	
Major Unit	
Major Unit	
2nd major or minor unit	
2nd major or minor unit	
Year 2, Semester 1	
Major Unit	
Major Unit	
2nd major or minor unit	
2nd major or minor unit	
Year 2, Semester 2	
Major Unit	
Major Unit	
2nd major or minor unit	
2nd major or minor unit	

Bachelor of Science (Biological Sciences)

Handbook

Year	2017
QUT code	ST01
CRICOS	077696D
Duration (full-time)	3 years
Duration (part-time domestic)	6 years
OP	13
Rank	71
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9000 per year full-time (96 credit points)
International fee (indicative)	2017: $32300 per year full-time (96 credit points)
Total credit points	288
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Graham Johnson; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Dr Marion Bateson

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended Study: At least one of Chemistry, Physics, Biology, Earth Science, Geography or Maths C.

International Subject prerequisites

- Maths B
- Agricultural Science, Biology, Chemistry, Earth Science, Marine Science, Marine Studies, Physics or Science21

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended Study: At least one of Chemistry, Physics, Biology, Earth Science, Geography or Maths C.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Overview

Biology is the study of life and living things: animals, insects, plants, and microorganisms; everything that breathes, grows and feeds us; creatures that fly through the air majestically and those that lurk in the depths of the ocean, under rocks, or even under the toilet seat.

Biologists are curious about all these things and want to know how they work, how to grow and protect them—how to get involved with life on this planet.

Biologists also love a challenge. How will we feed a population of eight billion people in 2025? Can we use biological waste to solve our energy crisis? How can we protect our plants and animals from new and fiendish exotic diseases? And how many rare species can we save from extinction?

Why choose this course?

This course will provide a strong foundation in the core biological sciences such as physiology, genetics, zoology, plant sciences and microbiology. It has been designed to be hands on, to develop problem solving skills through active learning, and to give an early appreciation of the way that many disciplines can be brought to bear on a single problem.

As well as receiving core training in the basics through the biology major, students can either add breadth to their degree by choosing a minor from a complementary discipline (e.g. chemistry), or depth to their biological skills through a specialised minor such as biotechnology.

During the course you will experience some of the most advanced laboratories in Australia and be taught by staff who are at the top of their research fields internationally. You can also expect to stay in touch with the real world, as guest lectures, site visits and opportunities for work-integrated learning bring a strong industry flavour to the degree.

Career outcomes

Biology graduates work in a wide range of jobs throughout the public and private sectors, and in a range of environments including offices, laboratories, farms, fields, factories cities and forests.

Laboratory-based careers may include laboratory management, basic research, forensic microbiology, or molecular genetics. Farm and field-based work could entail animal management, plant breeding, entomology, marine biology, or pest and disease management. Industrial work might involve biotechnology to produce food, fuel or pharmaceuticals. Other careers could involve science writing, teaching, policy development, or the commercialisation and the management of biological products and processes.

Professional recognition

Professional recognition can be achieved through membership of an appropriate scientific society, such as the Australian Society for Biochemistry and Molecular Biology, the Ecological Society of Australia, the Australian Society of

Horticultural Science and many more.

Domestic Course structure

During your first year of study you'll get to sample a range of core science disciplines, allowing you to decide on your major later.

Faculty core units

These six units give you an introduction to the principles of science. The inquiry based experimental science units will give you the opportunity to learn by enquiry and become familiar with the methods of scientific inquiry.

From your very first semester, you will collaborate with your peers and teaching staff in QUT's exciting new learning environments. You will explore real-world problems from multiple scientific perspectives and learn the tools of the trade. Depending on your choices, you may find yourself out in the field, working in the laboratory or learning about the impact of scientific discovery on people, policy, industry and the planet.

Working with data you have collected, you'll study how to apply fundamental methods of scientific practice, perform scientific analysis, and learn the tools to present your findings. You'll have the opportunity to explore and discover the range of career and professional outcomes available to you, so you can gain the most from your unit selection and the flexibility the Bachelor of Science has to offer.

Primary major

Your major is your main area of study for what you aspire to become professionally. You will receive in-depth knowledge and expertise within your chosen scientific discipline, preparing you for entry into the workforce or further study. Your primary major comprises 10 units.

Complementary study areas

This is where you make the degree your own, tailoring your studies to further match your individual career goals with a wide range of complementary study options available. You'll have the opportunity to develop sought-after professional skills, deepen your understanding of your major discipline, pursue an interest from across the university, or broaden your scientific understanding. You can even work with industry or study overseas to gain credit towards your degree.

You can choose: a second major (eight units); or an extended minor (four units) or breadth minor (four units), plus either a faculty minor (four units) or breadth minor (four units).

Second major (eight units)
Choose a second area of study to complement your major, and develop a significant depth of knowledge and skills in two discipline areas. Experience another field, learn another academic methodology and experience interdisciplinary networking.

Choose a second science discipline (biological sciences, chemistry, environmental science or physics), or explore different perspectives which might include:

- computational and simulation science
- innovation and entrepreneurship
- science communication, or
- policy and governance.

Minor (four units)
You might prefer to expand the breadth and depth of your studies by adding to your chosen science major with two minors. Minors include:

Extension minor (four units)

Gain further insights and depth in your primary area of study. Intensify your chosen major to develop additional knowledge, skills and experience for your career in science.

Breadth minor (four units)

Broaden your studies to include minors from the list of science majors, second majors or from the list of university-wide minors.

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2

Code	Title
Year 1, Semester 1	
SEB104	Grand Challenges in Science
SEB115	Experimental Science 1
SEB113	Quantitative Methods in Science
SEB116	Experimental Science 2
Year 1, Semester 2	
BVB101	Foundations of Biology
BVB102	Evolution
Core Unit Option	
Core Unit Option	
Year 2, Semester 1	
BVB201	Biological Processes
BVB202	Experimental Design and Quantitative Methods
2nd major or minor unit	
2nd major or minor unit	
Year 2, Semester 2	
BVB203	Plant Biology
BVB204	Ecology
2nd major or minor unit	
2nd major or minor unit	
Year 3, Semester 1	
BVB301	Animal Biology
BVB305	Microbiology and the Environment
2nd major or minor unit	
2nd major or minor unit	
Year 3, Semester 2	
BVB302	Applied Biology
BVB304	Integrative Biology
2nd major or minor unit	
2nd major or minor unit	

Bachelor of Science (Chemistry)

Handbook

Year	2017
QUT code	ST01
CRICOS	077696D
Duration (full-time)	3 years
Duration (part-time domestic)	6 years
OP	13
Rank	71
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9000 per year full-time (96 credit points)
International fee (indicative)	2017: $32300 per year full-time (96 credit points)
Total credit points	288
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Graham Johnson; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Dr Sara Couperthwaite (SEM-1 2017); Dr James Blinco (SEM-2 2017)

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended Study: At least one of Chemistry, Physics, Biology, Earth Science, Geography or Maths C.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended Study: At least one of Chemistry, Physics, Biology, Earth Science, Geography or Maths C.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Overview

Chemists are involved in most areas of science, technology, environment and industry; for example, medicinal drugs, nanotechnology, water and air quality and energy production. Manufacturing industries rely on chemists to ensure that quality and safety standards are maintained. The development of better and safer drugs depends heavily on the input of chemists.

Chemistry is the study of structures, properties, synthesis and reactions of molecules and materials and these principles are fundamental to many other disciplines, including biotechnology, environmental science, geosciences, materials science and food science.

At QUT you will study analytical, physical, organic and inorganic chemistry with an additional focus on modern applications such as nanotechnology, analytical chemistry, and spectroscopy.

Why choose this course?

The QUT chemistry degree is a qualification that is known and respected by employers. Many employers prefer QUT chemistry graduates, especially those with an extension minor in chemistry, because of their advanced technical skills, their experience with modern instrumentation and their training in scientific communication.

After two years' study, you will be eligible to apply for the Queensland Health Analytical Chemistry Scholarship (available only to QUT chemistry students), which pays $21 000 for your third year, with guaranteed employment for two years after graduation#.

Our training in analytical chemistry throughout the chemistry degree is renowned nationally. You will undertake a comprehensive laboratory program including experiments using modern computer-based analytical instruments and gain vital knowledge and experience in the health and safety aspects of handling chemicals. You will learn under the guidance of highly respected lecturers, most of whom are actively involved in cutting-edge research.

Career outcomes

Among a diverse range of employment opportunities, you may become an industrial chemist, materials scientist, environmental chemist, quality control analyst, laboratory supervisor, food chemist, or an organic/inorganic chemist. Your interaction with QUT experts in current fields of interest, including drug development, clay and minerals chemistry, renewable energy sources, nanotechnology, environmental monitoring, and applications of modern analytical instrumentation, may lead to careers in these areas.

QUT graduates are sought after by police and other forensics laboratories because of their extensive practical training using modern analytical instrumentation. With the addition of a postgraduate diploma in education, you may wish to pursue opportunities in the teaching profession.

Professional recognition

Graduates completing the chemistry major with the chemistry for industry second major are eligible for membership

of the Royal Australian Chemical Institute.

Domestic Course structure

During your first year of study you'll get to sample a range of core science disciplines, allowing you to decide on your major later.

Faculty core units

These six units give you an introduction to the principles of science. The inquiry based experimental science units will give you the opportunity to learn by enquiry and become familiar with the methods of scientific inquiry.

From your very first semester, you will collaborate with your peers and teaching staff in QUT's exciting new learning environments. You will explore real-world problems from multiple scientific perspectives and learn the tools of the trade. Depending on your choices, you may find yourself out in the field, working in the laboratory or learning about the impact of scientific discovery on people, policy, industry and the planet.

Working with data you have collected, you'll study how to apply fundamental methods of scientific practice, perform scientific analysis, and learn the tools to present your findings. You'll have the opportunity to explore and discover the range of career and professional outcomes available to you, so you can gain the most from your unit selection and the flexibility the Bachelor of Science has to offer.

Primary major

Your major is your main area of study for what you aspire to become professionally. You will receive in-depth knowledge and expertise within your chosen scientific discipline, preparing you for entry into the workforce or further study. Your primary major comprises 10 units.

Complementary study areas

This is where you make the degree your own, tailoring your studies to further match your individual career goals with a wide range of complementary study options available. You'll have the opportunity to develop sought-after professional skills, deepen your understanding of your major discipline, pursue an interest from across the university, or broaden your scientific understanding. You can even work with industry or study overseas to gain credit towards your degree.

You can choose: a second major (eight units); or an extended minor (four units) or breadth minor (four units), plus either a faculty minor (four units) or breadth minor (four units).

Second major (eight units)
Choose a second area of study to complement your major, and develop a significant depth of knowledge and skills in two discipline areas. Experience another field, learn another academic methodology and experience interdisciplinary networking.

Choose a second science discipline (biological sciences, chemistry, environmental science or physics), or explore different perspectives which might include:

- computational and simulation science
- innovation and entrepreneurship
- science communication, or
- policy and governance.

Minor (four units)
You might prefer to expand the breadth and depth of your studies by adding to your chosen science major with two minors. Minors include:

Extension minor (four units)

Gain further insights and depth in your primary area of study. Intensify your chosen major to develop additional knowledge, skills and experience for your career in science.

Breadth minor (four units)

Broaden your studies to include minors from the list of science majors, second majors or from the list of university-wide minors.

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2

Code	Title
Year 1, Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 1, Semester 2	
CVB101	General Chemistry
CVB102	Chemical Structure and Reactivity
Core Unit Option	
Core Unit Option	
Year 2, Semester 1	
CVB201	Inorganic Chemistry
CVB202	Analytical Chemistry
2nd major or minor unit	
2nd major or minor unit	
Year 2, Semester 2	
CVB203	Physical Chemistry
CVB204	Organic Structure and Mechanisms
2nd major or minor unit	
2nd major or minor unit	
Year 3, Semester 1	
CVB301	Organic Chemistry: Strategies for Synthesis
CVB302	Applied Physical Chemistry
2nd major or minor unit	
2nd major or minor unit	
Year 3, Semester 2	
CVB303	Coordination Chemistry
CVB304	Chemistry Research Project
2nd major or minor unit	
2nd major or minor unit	

Bachelor of Science (Earth Science)

Handbook

Year	2017
QUT code	ST01
CRICOS	077696D
Duration (full-time)	3 years
Duration (part-time domestic)	6 years
OP	13
Rank	71
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9000 per year full-time (96 credit points)
International fee (indicative)	2017: $32300 per year full-time (96 credit points)
Total credit points	288
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Graham Johnson; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Dr Luke Nothdurft

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended Study: At least one of Chemistry, Physics, Biology, Earth Science, Geography or Maths C.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended Study: At least one of Chemistry, Physics, Biology, Earth Science, Geography or Maths C.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Overview

The Earth is an amazing place and for an earth scientist, it offers a unique natural laboratory that covers both space and time. Earth science is a multidisciplinary science that applies the tools of chemistry, physics, biology and mathematics to understand earth processes, decipher its past and predict its future. Earth scientists work to monitor changes in the Earth's environment and suggest solutions to environmental problems. They study natural hazards to find ways to lessen the loss of life and reduce property damage.

Earth scientists play key roles in the search for fuels and minerals. Climate change, earthquakes, and geothermal energy are just a few of the issues that require knowledge of earth science. Earth science (also known as geoscience) blends the traditional fields of geology, physical geography and oceanography/ hydrology. Geology describes the rocky parts of the Earth's crust (or lithosphere) and its historic development. Physical geography, which studies the Earth's surface, includes geomorphology, soil science, and biogeoscience. The marine and freshwater parts of Earth define the fields of oceanography and hydrology.

Why choose this course?

Earth science is an exciting and fun science with many interesting and practical applications and a great number of travelling opportunities. If you enjoy working outdoors and are interested in understanding how the world works, then you will find earth science a rewarding area of study. Blending current research issues and problem solving with theory and industry-related, hands-on practicals, the earth science major provides you with a fundamental background to pursue a career in either the resource or the environmental sector.

Career outcomes

There is currently a shortage of earth scientists in Australia and employment rates are high and salaries great. Earth scientists are in high demand in the energy sector (oil, gas, coal, geothermal) and exploration and mining industries. Many earth scientists find employment in environmental consulting companies tackling geotechnical, groundwater contamination, natural hazards or climate change issues. Earth scientists may work for government agencies such as CSIRO and Geoscience Australia doing applied research, or for state or local governments.

Domestic Course structure

During your first year of study you'll get to sample a range of core science disciplines, allowing you to decide on your major later.

Faculty core units

These six units give you an introduction to the principles of science. The inquiry based experimental science units will give you the opportunity to learn by enquiry and become familiar with the methods of scientific inquiry.

From your very first semester, you will collaborate with your peers and teaching staff in QUT's exciting new learning environments. You will explore real-world problems from multiple scientific

perspectives and learn the tools of the trade. Depending on your choices, you may find yourself out in the field, working in the laboratory or learning about the impact of scientific discovery on people, policy, industry and the planet.

Working with data you have collected, you'll study how to apply fundamental methods of scientific practice, perform scientific analysis, and learn the tools to present your findings. You'll have the opportunity to explore and discover the range of career and professional outcomes available to you, so you can gain the most from your unit selection and the flexibility the Bachelor of Science has to offer.

Your major

Your major is your main area of study for what you aspire to become professionally. You will receive in-depth knowledge and expertise within your chosen scientific discipline, preparing you for entry into the workforce or further study. Your primary major comprises 10 units.

Complementary study areas

This is where you make the degree your own, tailoring your studies to further match your individual career goals with a wide range of complementary study options available. You'll have the opportunity to develop sought-after professional skills, deepen your understanding of your major discipline, pursue an interest from across the university, or broaden your scientific understanding. You can even work with industry or study overseas to gain credit towards your degree.

You can choose: a second major (eight units); or an extended minor (four units) or breadth minor (four units), plus either a faculty minor (four units) or breadth minor (four units).

Second major (eight units)
Choose a second area of study to complement your major, and develop a significant depth of knowledge and skills in two discipline areas. Experience another field, learn another academic methodology and experience interdisciplinary networking.

Choose a second science discipline (biological sciences, chemistry, environmental science or physics), or explore different perspectives which might include:

- computational and simulation science
- innovation and entrepreneurship
- science communication, or
- policy and governance.

Minor (four units)
You might prefer to expand the breadth and depth of your studies by adding to your chosen science major with two minors. Minors include:

Extension minor (four units)

Gain further insights and depth in your primary area of study. Intensify your chosen major to develop additional knowledge, skills and experience for your career in science.

Breadth minor (four units)

Broaden your studies to include minors from the list of science majors, second majors or from the list of university-wide minors.

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2

Code	Title
Year 1, Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 1, Semester 2	
ERB101	Earth Systems
ERB102	Evolving Earth
Core Unit Option	
Core Unit Option	
Year 2, Semester 1	
ERB201	Destructive Earth: Natural Hazards
ERB202	Marine Geoscience
2nd major or minor unit	
2nd major or minor unit	
Year 2, Semester 2	
ERB203	Sedimentary Geology and Stratigraphy
ERB204	Deforming Earth: Fundamentals of Structural Geology
2nd major or minor unit	
2nd major or minor unit	
Year 3, Semester 1	
ERB301	Chemical Earth
ERB302	Applied Geophysics
2nd major or minor unit	
2nd major or minor unit	
Year 3, Semester 2	
ERB303	Energy Resources and Basin Analysis
ERB304	Dynamic Earth: Plate Tectonics
2nd major or minor unit	
2nd major or minor unit	

Bachelor of Science (Environmental Science)

Handbook

Year	2017
QUT code	ST01
CRICOS	077696D
Duration (full-time)	3 years
Duration (part-time domestic)	6 years
OP	13
Rank	71
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9000 per year full-time (96 credit points)
International fee (indicative)	2017: $32300 per year full-time (96 credit points)
Total credit points	288
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Graham Johnson; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Dr Andrew Baker

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended Study: At least one of Chemistry, Physics, Biology, Earth Science, Geography or Maths C.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended Study: At least one of Chemistry, Physics, Biology, Earth Science, Geography or Maths C.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Why choose this course?

The environmental science course at QUT is designed to provide hands-on skills and field experiences using real-world industry examples and methods to allow you to pursue a variety of careers as an environmental scientist. The program has particular strengths in the areas of land resources, hydrogeology, environmental geology, biogeochemistry, geographic information systems and field mapping, systems modelling and sustainable management.

The program also emphasises practical skills and experience, including day-long and extended field trips. You will learn from guest lecturers from relevant government agencies, industry and QUT staff who regularly provide advice for industry, government and community groups.

Overview

We rely on our natural environment to sustain our lives and our lifestyles. Do you want to help the earth's natural environment to maintain its integrity while continuing our urban and rural development? Have you wanted to be part of the solution to our increasing environmental issues such as climate change, air, water and soil quality, soil erosion, dry land salinity or water resources? We continually need to improve our understanding and management of the natural environment to balance our development with wise management while minimising impacts and degradation.

An understanding of the mechanisms controlling environmental systems provides the skills required to undertake a great range of scientific environmental planning and management, and tackle problems such as local water quality and ecosystem impacts, soil erosion, catchment and groundwater use, or adaptation to global climate change.

Career outcomes

Environmental scientists are continually needed in a wide variety of planning, management, monitoring and research careers. These roles are usually found in government departments and agencies, local councils, consultancy, and industrial and mining companies. As an environmental science graduate, you could be working in urban, rural or remote settings depending on your interests.

Graduates are equipped to assess resources, implement environmental impact programs, analyse and interpret environmental data and formulate contingency plans in a wide variety of areas. These include strategic land use planning; waste disposal; pollution measurement and control; coastal protection; environmental impact of mining, tourism and urban development; rehabilitation and reforestation of degraded sites; ground water assessment and modelling; flood plain planning; erosion control; and marine science.

Professional recognition

Graduates are eligible for membership of the Environment Institute of Australia and New Zealand and a variety of other scientific societies, including the Soil Science Society of Australia and the Ecological Society of Australia.

Domestic Course structure

Your science degree

During your first year of study you'll get to sample a range of core science disciplines, allowing you to decide on your major later.

Faculty core units

These six units give you an introduction to the principles of science. The inquiry based experimental science units will give you the opportunity to learn by enquiry and become familiar with the methods of scientific inquiry.

From your very first semester, you will collaborate with your peers and teaching staff in QUT's exciting new learning environments. You will explore real-world problems from multiple scientific perspectives and learn the tools of the trade. Depending on your choices, you may find yourself out in the field, working in the laboratory or learning about the impact of scientific discovery on people, policy, industry and the planet.

Working with data you have collected, you'll study how to apply fundamental methods of scientific practice, perform scientific analysis, and learn the tools to present your findings. You'll have the opportunity to explore and discover the range of career and professional outcomes available to you, so you can gain the most from your unit selection and the flexibility the Bachelor of Science has to offer.

Primary major

Your major is your main area of study for what you aspire to become professionally. You will receive in-depth knowledge and expertise within your chosen scientific discipline, preparing you for entry into the workforce or further study. Your primary major comprises 10 units.

Complementary study areas

This is where you make the degree your own, tailoring your studies to further match your individual career goals with a wide range of complementary study options available. You'll have the opportunity to develop sought-after professional skills, deepen your understanding of your major discipline, pursue an interest from across the university, or broaden your scientific understanding. You can even work with industry or study overseas to gain credit towards your degree.

You can choose: a second major (eight units); or an extended minor (four units) or breadth minor (four units), plus either a faculty minor (four units) or breadth minor (four units).

Second major (eight units)
Choose a second area of study to complement your major, and develop a significant depth of knowledge and skills in two discipline areas. Experience another field, learn another academic methodology and experience interdisciplinary networking.

Choose a second science discipline (biological sciences, chemistry, environmental science or physics), or explore different perspectives which might include:

- computational and simulation science
- innovation and entrepreneurship
- science communication, or
- policy and governance.

Minor (four units)
You might prefer to expand the breadth and depth of your studies by adding to your chosen science major with two minors. Minors include:

Extension minor (four units)

Gain further insights and depth in your primary area of study. Intensify your chosen major to develop additional knowledge, skills and experience for your career in science.

Breadth minor (four units)

Broaden your studies to include minors from the list of science majors, second majors or from the list of university-wide minors.

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2

Code	Title
Year 1, Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 1, Semester 2	
ERB101	Earth Systems
EVB102	Ecosystems and the Environment
Core Unit Option	
Core Unit Option	
Year 2, Semester 1	
BVB202	Experimental Design and Quantitative Methods
EVB201	Global Environmental Issues
2nd major or minor unit	
2nd major or minor unit	
Year 2, Semester 2	
BVB204	Ecology
EVB203	Geospatial Information Science
2nd major or minor unit	
2nd major or minor unit	
Year 3, Semester 1	
EVB302	Environmental Pollution
EVB312	Soils and the Environment
[EVB212 replaced by EVB312 in 2017]	
2nd major or minor unit	
2nd major or minor unit	
Year 3, Semester 2	
ERB310	Groundwater Systems
[ENB380 replaced by ERB310 in 2017]	
EVB304	Case Studies in Environmental Science
2nd major or minor unit	
2nd major or minor unit	

Bachelor of Science (Physics)

Handbook

Year	2017
QUT code	ST01
CRICOS	077696D
Duration (full-time)	3 years
Duration (part-time domestic)	6 years
OP	13
Rank	71
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9000 per year full-time (96 credit points)
International fee (indicative)	2017: $32300 per year full-time (96 credit points)
Total credit points	288
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Graham Johnson; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Dr Jamie Trapp (SEM-1 2017); Prof Nunzio Motta (SEM-2 2017)

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended Study: At least one of Chemistry, Physics, Biology, Earth Science, Geography or Maths C.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended Study: At least one of Chemistry, Physics, Biology, Earth Science, Geography or Maths C.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Overview

Physicists are involved in finding solutions to many current and future challenges facing our world. These include developing instruments for environmental monitoring, computer models for climate change prediction, and developing solar and renewable energy systems . Physicists are also attempting to address the world's ever-increasing appetite for information and information processing by undertaking research into quantum computers, nanotechnology, lasers and photonics.

Physics deals with the natural laws and processes, and the states and properties, of matter, energy, space and time. Physics also underlies many of the recent advances in information technology, medicine and biotechnology. Areas of specialisation include mechanics, electromagnetism, lasers and optics, medical physics, computational physics, nuclear and radiation physics, astronomy and astrophysics, thermodynamics, quantum mechanics and relativity.

Why choose this course?

QUT's physics course has a strong applied emphasis so you will spend a significant amount of time in the undergraduate teaching laboratories. In each unit that you study the theory will be supported by experimental work. In your final year, you will undertake research and gain exposure to the research laboratories through the experimental physics unit.

You can also apply for a Vacation Research Experience Scholarship to gain experience working on a research project. Many of the lecturers at QUT have worked in industry and QUT works closely with industry through consultancy and research projects, so you can be sure that the course will be up to date and relevant to the real world.

Career outcomes

Physicists are an asset to almost any industry. Employment areas of QUT physics graduates are very wide ranging. These include research and development departments of large manufacturing companies, mining and exploration companies, research institutions such as the Commonwealth Scientific and Industrial Research Organisation and the Defence Science and Technology Organisation, government bodies such as the Bureau of Meteorology , environmental protection agencies and health departments, schools, universities and hospitals.

Broad training in data analysis and problem-solving skills also makes physicists well suited to management and consulting roles in a range of technology based industries.

Professional recognition

Graduates are eligible for membership of the Australian Institute of Physics, dependent on choice of study options.

Domestic Course structure

During your first year of study you'll get to sample a range of core science disciplines, allowing you to decide on your major later.

Faculty core units

These six units give you an introduction to the principles of science. The inquiry based experimental science units will give you the opportunity to learn by enquiry and become familiar with the methods of scientific inquiry.

From your very first semester, you will collaborate with your peers and teaching staff in QUT's exciting new learning environments. You will explore real-world problems from multiple scientific perspectives and learn the tools of the trade. Depending on your choices, you may find yourself out in the field, working in the laboratory or learning about the impact of scientific discovery on people, policy, industry and the planet.

Working with data you have collected, you'll study how to apply fundamental methods of scientific practice, perform scientific analysis, and learn the tools to present your findings. You'll have the opportunity to explore and discover the range of career and professional outcomes available to you, so you can gain the most from your unit selection and the flexibility the Bachelor of Science has to offer.

Primary major

Your major is your main area of study for what you aspire to become professionally. You will receive in-depth knowledge and expertise within your chosen scientific discipline, preparing you for entry into the workforce or further study. Your primary major comprises 10 units.

Complementary study areas

This is where you make the degree your own, tailoring your studies to further match your individual career goals with a wide range of complementary study options available. You'll have the opportunity to develop sought-after professional skills, deepen your understanding of your major discipline, pursue an interest from across the university, or broaden your scientific understanding. You can even work with industry or study overseas to gain credit towards your degree.

You can choose: a second major (eight units); or an extended minor (four units) or breadth minor (four units), plus either a faculty minor (four units) or breadth minor (four units).

Second major (eight units)

Choose a second area of study to complement your major, and develop a significant depth of knowledge and skills in two discipline areas. Experience another field, learn another academic methodology and experience interdisciplinary networking.

Choose a second science discipline (biological sciences, chemistry, environmental science or physics), or explore different perspectives which might include:

- computational and simulation science
- innovation and entrepreneurship
- science communication, or
- policy and governance.

Minor (four units)

You might prefer to expand the breadth and depth of your studies by adding to your chosen science major with two minors. Minors include:

Extension minor (four units)

Gain further insights and depth in your primary area of study. Intensify your chosen major to develop additional knowledge, skills and experience for your career in science.

Breadth minor (four units)

Broaden your studies to include minors from the list of science majors, second majors or from the list of university-wide minors.

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2

Code	Title
Year 1, Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 1, Semester 2	
PVB101	Physics of the Very Large
PVB102	Physics of the Very Small
Core Unit Option	
Core Unit Option	
Year 2, Semester 1	
PVB200	Computational and Mathematical Physics
[PVB201 replaced by PVB200 in 2015.]	
PVB203	Experimental Physics
2nd major or minor unit	
2nd major or minor unit	
Year 2, Semester 2	
PVB202	Mathematical Methods in Physics
PVB204	Electromagnetism
2nd major or minor unit	
2nd major or minor unit	
Year 3, Semester 1	
PVB301	Materials and Thermal Physics
PVB302	Classical and Quantum Physics
2nd major or minor unit	
2nd major or minor unit	
Year 3, Semester 2	
PVB303	Nuclear and Particle Physics
PVB304	Physics Research
2nd major or minor unit	
2nd major or minor unit	

Bachelor of Urban Development (Honours)

Handbook

Year	2017
QUT code	UD01
CRICOS	080479J
Duration (full-time)	4 years
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9500 per year full-time (96 credit points)
International fee (indicative)	2017: $27900 per year full-time (96 credit points)
Total credit points	384
Start months	February, July
Int. Start Months	February, July
Course Coordinator	Dr Andrea Blake; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Overview

This program has been designed to provide you with a real life exposure to a range of urban development disciplines to understand how your chosen course helps to prepare you for a rewarding career in the built environment. You have the opportunity to collaborate with your peers and teaching staff at QUT and to learn in exciting new learning environments. Throughout the course you will experience a range of site visits and fieldwork that will link the theory in lectures to everyday situations in your chosen field of study. You will learn about a range of career opportunities and professional outcomes that will enable you to optimise your experience and potential career. Your major will provide you with in depth knowledge and expertise in an urban development discipline. You will also have the opportunity to undertake a second major or two minors in an area that will broaden your urban development experience and/or complement your first major.

Course Design

Your QUT Bachelor of Urban Develoment (Honours) degree consists of 384 credit points (32 units) arranged as follows:

(a) 72 credit points (6 units) of Urban Development Core units, which includes a Work Integrated Learning unit that requires completion of workplace learning.

(b) 216 credit points (18 units) comprising one (1) major from the following:

- Construction Management
-
- Quantity Surveying and Cost Engineering
-
- Urban and Regional Planning

(c)

96 credit points of complementary studies comprising of either a Second Major (8 unit set) or two Minors (4 unit set each) from the options specified for your chosen major.

Pathways to Further Study

The (UD01) Bachelor of Urban Development (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates may be eligible for discipline relevant Masters and/or Doctoral level programs

Domestic Course structure

Course Design

Your QUT Bachelor of Urban Develoment (Honours) degree consists of 384 credit points (32 units) arranged as follows:

(a) 72 credit points (6 units) of Urban Development Core units, which includes a Work Integrated Learning unit that requires completion of workplace learning.
(b) 216 credit points (18 units) comprising one (1) major from the following:

- Construction Management
- Quantity Surveying and Cost Engineering
- Urban and Regional Planning

(c) 96 credit points of complementary studies comprising of either a Second Major (8 unit set) or two Minors (4 unit set each) from the options specified for your chosen major.

International Course structure

Course Design

Your QUT Bachelor of Urban Develoment (Honours) degree consists of 384 credit points (32 units) arranged as follows:

(a) 72 credit points (6 units) of Urban Development Core units, which includes a Work Integrated Learning unit that requires completion of workplace learning.
(b) 216 credit points (18 units) comprising one (1) major from the following:

- Construction Management
- Quantity Surveying and Cost Engineering
- Urban and Regional Planning

(c) 96 credit points of complementary studies comprising of either a Second Major (8 unit set) or two Minors (4 unit set each) from the options specified for your chosen major.

Bachelor of Urban Development (Honours) (Construction Management)

Handbook

Year	2017
QUT code	UD01
CRICOS	080479J
Duration (full-time)	4 years
OP	11
Rank	76
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9500 per year full-time (96 credit points)
International fee (indicative)	2017: $27900 per year full-time (96 credit points)
Total credit points	384
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Andrea Blake; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Dr Carol Hon sef.enquiry@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths A, B or C
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

International Subject prerequisites

- Maths A, B or C

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Overview

The QUT Bachelor of Urban Development (Honours) degree with a primary major (Study Area A) in Construction Management is designed to provide you with 'real-life' exposure, and the knowledge and skills to prepare you for rewarding career the Construction, Development and associated industries. With the capacity, will and innovation to contribute to a better built environment, as a work-ready graduate, you will be able to apply sound judgement and expertise in practice managing complex built environments.

Course Design

Your QUT Bachelor of Urban Development (Honours) (Construction Management) degree consists of 384 credit points (32 units) arranged as follows:

a) 72 credit points (6 units) of Urban Development Core units, which includes a Work Integrated Learning unit that requires completion of workplace learning.

b) 216 credit points (18 units) of Construction Management discipline units

c) 96 credit points of complementary studies comprising of either a Second Major (8 unit set) or two Minors (4 unit set each).

Urban Development Core Units

These units will engage you in understanding Urban Development from a range of disciplinary and multidisciplinary perspectives, expose you to the various outcomes available for pursuing studies in this field and introduce the fundamental basis for policy and practice. Later core units, together with the discipline specific units, will progress your learning development through experiential and enquiry based learning in collaborative environments.

Construction Management Major Discipline Units

These units give you discipline level knowledge, skills and application competencies from introductory through intermediate, culminating with advanced graduate level units. They focus on developing your knowledge, practice and higher order thinking to an advanced level.

Complementary Studies Options

Second Major:

A choice of one second major from:

Urban Development disciplines:
•Urban and Regional Planning Studies
•Property
•Accountancy
•Applied Economics and Finance

(additional second major choices are currently under development)

Minors:

A choice of two minors from the lists below:

Urban Development disciplines:
•Urban and Regional Planning Studies
•Property Development
•Property Investment and Finance
•Property Valuation

Other disciplines:
•Language Minors – University Wide Options
•University Wide Minors

Special Course Requirements

You are required to obtain a minimum of 80 days of approved construction management industrial experience as part of your Work Integrated Learning core unit.

Professional Recognition

Graduates are eligible for membership of the Australian Institute of Building (AIB)

Pathways to Further Study

The (UD01) Bachelor of Urban Development (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates may be eligible for discipline relevant Masters and/or Doctoral level programs

Domestic Course structure

Your QUT Bachelor of Urban Development (Honours) (Construction Management) degree consists of 384 credit points (32 units) arranged as follows:

a) 72 credit points (6 units) of urban development core units, which includes a work integrated learning unit that requires completion of workplace learning

b) 216 credit points (18 units) of construction management discipline units

c) 96 credit points of complementary studies comprising of either a second major (8 unit set) or two minors (4 unit set each).

Urban development core units

These units will engage you in understanding urban development from a range of disciplinary and multidisciplinary perspectives, expose you to the various outcomes available for pursuing studies in this field and introduce the fundamental basis for policy and practice. Later core units, together with the discipline specific units, will progress your learning development through experiential and enquiry based learning in collaborative environments.

Construction management major discipline units

These units give you discipline level knowledge, skills and application competencies from introductory through intermediate, culminating with advanced graduate level units. They focus on developing your knowledge, practice and higher-order thinking to an advanced level.

Complementary studies options

Complementary studies may be taken as a second major of 96 credit points or two minors of 48 credit points each. Experiential minors in work integrated learning as well as student exchange are also available.

Second majors

A second major provides the opportunity for you to undertake significant studies in a second urban development discipline such as Property Economics, Urban and Regional Planning, Architectural Studies, Accountancy or Applied Economics and Finance. Second majors are also designed to provide diverse professional skills and knowledge beyond the traditional reaches of the built environment curriculum and can offer a range of study options in other fields.

Minors

Minors will allow you undertake studies in a companion discipline. They are designed to provide you with introductory to intermediate level knowlege and skills in areas complementary to your studies. You can choose a minor from other built environment disciplines. There are also minors designed to distinguish students in the employment marketplace with complementary non-discipline skills and competencies that you can choose from a range of inter- and intra-faculty disciplines.

Pathways to further study

The (UD01) Bachelor of Urban Development (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates may be eligible for discipline relevant masters and/or doctoral level programs.

International Course structure

Your QUT Bachelor of Urban Development (Honours) (Construction Management) degree consists of 384 credit points (32 units) arranged as follows:

a) 72 credit points (6 units) of urban development core units, which includes a work integrated learning unit that requires completion of workplace learning

b) 216 credit points (18 units) of construction management discipline units

c) 96 credit points of complementary studies comprising of either a second major (8 unit set) or two minors (4 unit set each).

Urban development core units

These units will engage you in understanding urban development from a range of disciplinary and multidisciplinary perspectives, expose you to the various outcomes available for pursuing studies in this field and introduce the fundamental basis for policy and practice. Later core units, together with the discipline specific units, will progress your learning development through experiential and enquiry based learning in collaborative environments.

Construction management major discipline units

These units give you discipline level knowledge, skills and application competencies from introductory through intermediate, culminating with advanced graduate level units. They focus on developing your knowledge, practice and higher order thinking to an advanced level.

Complementary studies options

Complementary studies may be taken as a second major of 96 credit points or two minors of 48 credit points each. Experiential minors in work integrated learning as well as student exchange are also available.

Second majors

A second major provides the opportunity for you to undertake significant studies in a second urban development discipline such as Property Economics, Urban and Regional Planning, Architectural Studies, Accountancy or Applied Economics and Finance. Second majors are also designed to provide diverse professional skills and knowledge beyond the traditional reaches of the built environment curriculum and can offer a range of study options in other fields.

Minors

Minors will allow you undertake studies in a companion discipline. They are designed to provide you with introductory to intermediate level knowlege and skills in areas complementary to your studies. You can choose a minor from other built environment disciplines. There are also minors designed to distinguish students in the employment marketplace with complementary non-discipline skills and competencies that you can choose from a range of inter- and intra-faculty disciplines.

Pathways to further study

The (UD01) Bachelor of Urban Development (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates may be

eligible for discipline relevant masters and/or doctoral level programs.

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
USB100	Understanding the Built Environment
UXB110	Residential Construction
UXB111	Imagine Construction Management
UXB112	Introduction to Structures
Year 1, Semester 2	
BSB113	Economics
LWS012	Urban Development Law
UXB113	Measurement for Construction
UXB114	Integrated Construction
Year 2, Semester 1	
UXB210	Commercial Construction
UXB211	Building Services
UXB213	Advanced Measurement for Construction
2nd Major/Minor unit	
Year 2, Semester 2	
UXB212	Designing Structures
UXB214	Construction Estimating
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
USB300	Property Development
UXH310	High-rise Construction
UXH311	Contract Administration
2nd Major/Minor unit	
Year 3, Semester 2	
UXB301	Work Integrated Learning Built Environment
SEB701 Work Integrated Learning is replaced by UXB301 from S2, 2017	
UXH312	Construction Legislation
UXH314	Modern Construction Business
2nd Major/Minor unit	
Year 4, Semester 1	
UXH300	Research Methods Built Environment
UXH400-1	Research Project 1 - Part A
UXH411	Programming and Scheduling
2nd Major/Minor unit	
Year 4, Semester 2	
UXH400-2	Research Project 1 - Part B
UXH410	Strategic Construction Management
2nd Major/Minor unit	
2nd Major/Minor unit	

Bachelor of Urban Development (Honours) (Quantity Surveying and Cost Engineering)

Handbook

Year	2017
QUT code	UD01
CRICOS	080479J
Duration (full-time)	4 years
OP	11
Rank	76
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9500 per year full-time (96 credit points)
International fee (indicative)	2017: $27900 per year full-time (96 credit points)
Total credit points	384
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Andrea Blake; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Mr Jason Gray sef.enquiry@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths A, B or C
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

International Subject prerequisites

- Maths A, B or C

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Overview

The QUT Bachelor of Urban Development (Honours) degree with a primary major (Study Area A) in Quantity Surveying and Cost Engineering is designed to provide you with 'real-life' exposure, and the knowledge and skills to prepare you for rewarding career the Construction, Resources and associated industries. With the capacity, will and innovation to contribute to a better built environment, as a work-ready graduate, you will be able to apply sound judgement and expertise in practice within your chosen field.

Course Design

Your QUT Bachelor of Urban Development (Honours) (Quantity Surveying and Cost Engineering) degree consists of 384 credit points (32 units) arranged as follows:

a) 72 credit points (6 units) of Urban Development Core units, which includes a Work Integrated Learning unit that requires completion of workplace learning.

b) 216 credit points (18 units) of Quantity Surveying and Cost Engineering discipline units

c) 96 credit points of complementary studies comprising of either a Second Major (8 unit set) or two Minors (4 unit set each).

Urban Development Core Units

These units will engage you in understanding Urban Development from a range of disciplinary and multidisciplinary perspectives, expose you to the various outcomes available for pursuing studies in this field and introduce the fundamental basis for policy and practice. Later core units, together with the discipline specific units, will progress your learning development through experiential and enquiry based learning in collaborative environments.

Quantity Surveying and Cost Engineering Major Discipline Units

These units give you discipline level knowledge, skills and application competencies from introductory through intermediate, culminating with advanced graduate level units. They focus on developing your knowledge, practice and higher order thinking to an advanced level.

Complementary Studies Options

Second Major:

A choice of one second major from:

Urban Development disciplines:
•Urban and Regional Planning Studies
•Property
•Accountancy
•Applied Economics and Finance

(additional second major choices are currently under development)

Minors:

A choice of two minors from the lists below:

Urban Development disciplines:
•Urban and Regional Planning Studies
•Property Development
•Property Investment and Finance
•Property Valuation

Other disciplines:
•Language Minors – University Wide Options

•University Wide Minors

Special Course Requirements

You are required to obtain a minimum of 80 days of approved quantity surveying and cost engineering industrial experience as part of your Work Integrated Learning core unit.

Professional Recognition

Graduates are eligible for membership of the Australian Institute of Quantity Surveyors (AIQS), the Royal Institution of Chartered Surveyors (RICS) and Board of Quantity Surveyors Malaysia (BQSM).

Pathways to Further Study

The (UD01) Bachelor of Urban Development (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates may be eligible for discipline relevant Masters and/or Doctoral level programs

Domestic Course structure

Your QUT Bachelor of Urban Development (Honours) (Quantity Surveying and Cost Engineering) degree consists of 384 credit points (32 units) arranged as follows:

a) 72 credit points (6 units) of urban development core units, which includes a work integrated learning unit that requires completion of workplace learning

b) 216 credit points (18 units) of quantity surveying and cost engineering discipline units

c) 96 credit points of complementary studies comprising of either a second major (8 unit set) or two minors (4 unit set each).

Urban development core units

These units will engage you in understanding urban development from a range of disciplinary and multidisciplinary perspectives, expose you to the various outcomes available for pursuing studies in this field and introduce the fundamental basis for policy and practice. Later core units, together with the discipline specific units, will progress your learning development through experiential and enquiry based learning in collaborative environments.

Quantity surveying and cost engineering major discipline units

These units give you discipline level knowledge, skills and application competencies from introductory through intermediate, culminating with advanced graduate level units. They focus on developing your knowledge, practice and higher-order thinking to an advanced level.

Complementary studies options

Complementary studies may be taken as a second major of 96 credit points or two minors of 48 credit points each. Experiential minors in work integrated learning as well as student exchange are also available.

Second majors

A second major provides the opportunity for you to undertake significant studies in a second Urban Development discipline such as Property Economics, Urban and Regional Planning, Architectural Studies, Accountancy or Applied Economics and Finance. Second majors are also designed to provide diverse professional skills and knowledge beyond the traditional reaches of the built environment curriculum and can offer a range of study options in other fields.

Minors

Minors will allow you undertake studies in a companion discipline. They are designed to provide you with introductory to intermediate level knowlege and skills in areas complementary to your studies. You can choose a minor from other built environment disciplines. There are also minors designed to distinguish students in the employment marketplace with complementary non-discipline skills and competencies that you can choose from a range of inter- and intra-faculty disciplines.

Pathways to further study

The (UD01) Bachelor of Urban Development (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates may be eligible for discipline relevant masters and/or doctoral level programs.

International Course structure

Your QUT Bachelor of Urban Development (Honours) (Quantity Surveying and Cost Engineering) degree consists of 384 credit points (32 units) arranged as follows:

a) 72 credit points (6 units) of Urban Development Core units, which includes a Work Integrated Learning unit that requires completion of workplace learning.

b) 216 credit points (18 units) of Quantity Surveying and Cost Engineering discipline units

c) 96 credit points of complementary studies comprising of either a Second Major (8 unit set) or two Minors (4 unit set each).

Urban Development Core Units

These units will engage you in understanding Urban Development from a range of disciplinary and multidisciplinary perspectives, expose you to the various outcomes available for pursuing studies in this field and introduce the fundamental basis for policy and practice. Later core units, together with the discipline specific units, will progress your learning development through experiential and enquiry based learning in collaborative environments.

Quantity Surveying and Cost Engineering Major Discipline Units

These units give you discipline level knowledge, skills and application competencies from introductory through intermediate, culminating with advanced graduate level units. They focus on developing your knowledge, practice and higher-order thinking to an advanced level.

Complementary Studies Options

Complementary studies may be taken as a Second Major of 96 credit points or two Minors of 48 credit points each. Experiential minors in Work Integrated Learning as well as student exchange are also available.

Second Majors

A second major provides the opportunity for you to undertake significant studies in a second Urban Development discipline such as Property Economics, Urban and Regional Planning, Architectural Studies, Accountancy or Applied Economics and Finance. Second majors are also designed to provide diverse professional skills and knowledge beyond the traditional reaches of the built environment curriculum and can offer a range of study options in other fields.

Minors

Minors will allow you undertake studies in a companion discipline. They are designed to provide you with introductory to intermediate level knowlege and skills in areas complementary to your studies. You can choose a minor from other built environment disciplines. There are also minors designed to distinguish students in the employment marketplace with complementary 'non-discipline' skills and competencies that you can choose from a range of inter- and intra-faculty disciplines.

Bachelor of Urban Development (Honours) (Quantity Surveying and Cost Engineering)

Pathways to Further Study

The (UD01) Bachelor of Urban Development (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates may be eligible for discipline relevant Masters and/or Doctoral level programs.

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
USB100	Understanding the Built Environment
UXB110	Residential Construction
UXB120	Introduction to Heavy Engineering Sector Technology
UXB121	Imagine Quantity Surveying and Cost Engineering
Year 1, Semester 2	
BSB113	Economics
LWS012	Urban Development Law
UXB113	Measurement for Construction
UXB114	Integrated Construction
Year 2, Semester 1	
UXB210	Commercial Construction
UXB211	Building Services
UXB213	Advanced Measurement for Construction
2nd Major/Minor unit	
Year 2, Semester 2	
UXB214	Construction Estimating
UXB220	Services and Heavy Engineering Measurement
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
USB300	Property Development
UXH310	High-rise Construction
UXH311	Contract Administration
2nd Major/Minor unit	
Year 3, Semester 2	
UXB301	Work Integrated Learning Built Environment
SEB701 Work Integrated Learning is replaced by UXB301 from S2, 2017	
UXH314	Modern Construction Business
UXH321	Cost Planning and Controls
2nd Major/Minor unit	
Year 4, Semester 1	
UXH300	Research Methods Built Environment
UXH400-1	Research Project 1 - Part A
UXH420	Risk Management in the Resources Sector
2nd Major/Minor unit	
Year 4, Semester 2	
UXH312	Construction Legislation
UXH400-2	Research Project 1 - Part B
2nd Major/Minor unit	
2nd Major/Minor unit	

Bachelor of Urban Development (Honours) (Urban and Regional Planning)

Handbook

Year	2017
QUT code	UD01
CRICOS	080479J
Duration (full-time)	4 years
OP	11
Rank	76
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9500 per year full-time (96 credit points)
International fee (indicative)	2017: $27900 per year full-time (96 credit points)
Total credit points	384
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Andrea Blake; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Dr Severine Mayere sef.enquiry@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Overview

The QUT Bachelor of Urban Development (Honours) degree with a primary major (Study Area A) in Urban and Regional Planning is designed to provide you with 'real-life' exposure and knowledge and expertise in the field to design and administer plans and policy at neighbourhood, local, regional and state levels. With the capacity and will to contribute to a better built environment, as a work-ready graduate, you will be able to apply your perceptive sensibilities and skills in practice to create sustainable natural and human environments.

Course Design

Your QUT Bachelor of Urban Development (Honours) (Urban and Regional Planning) degree consists of 384 credit points (32 units) arranged as follows:

a) 72 credit points (6 units) of Urban Development Core units, which includes a Work Integrated Learning unit that requires completion of workplace learning.

b) 216 credit points (18 units) of Urban and Regional Planning discipline units

c) 96 credit points of complementary studies comprising of either a Second Major (8 unit set) or two Minors (4 unit set each).

Urban Development Core Units

These units will engage you in understanding Urban Development from a range of disciplinary and multidisciplinary perspectives, expose you to the various outcomes available for pursuing studies in this field and introduce the fundamental basis for policy and practice. Later core units, together with the discipline specific units, will progress your learning development through experiential and enquiry based learning in collaborative environments.

Urban and Regional Planning Major Discipline Units

These units give you discipline level knowledge, skills and application competencies from introductory through intermediate, culminating with advanced graduate level units. They focus on developing your knowledge, practice and higher order thinking to an advanced level.

Complementary Studies Options

Second Major:

A choice of one second major from:

Urban Development disciplines:
•Urban Development Construction
•Property
•Accountancy
•Applied Economics and Finance

(additional second major choices are currently under development)

Minors:

A choice of two minors from the lists below:

Urban Development disciplines:
•Residential Construction
•Administration in Construction
•Building Economics
•Property Development
•Property Investment and Finance
•Property Valuation

Other disciplines:
•Urban Design
•Language Minors – University Wide Options
•University Wide Minors

Professional Recognition

Graduates are eligible for membership of the Planning Institute of Australia (PIA)

Bachelor of Urban Development (Honours) (Urban and Regional Planning)

Pathways to Further Study

The (UD01) Bachelor of Urban Development (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates may be eligible for discipline relevant Masters and/or Doctoral level programs

Domestic Course structure

Your QUT Bachelor of Urban Development (Honours) (Urban and Regional Planning) degree consists of 384 credit points (32 units) arranged as follows:

a) 72 credit points (6 units) of urban development core units, which includes a work integrated learning unit that requires completion of workplace learning

b) 216 credit points (18 units) of urban and regional planning discipline units

c) 96 credit points of complementary studies comprising of either a second major (8 unit set) or two minors (4 unit set each).

Urban development core units

These units will engage you in understanding urban development from a range of disciplinary and multidisciplinary perspectives, expose you to the various outcomes available for pursuing studies in this field and introduce the fundamental basis for policy and practice. Later core units, together with the discipline specific units, will progress your learning development through experiential and enquiry based learning in collaborative environments.

Urban and regional planning major discipline units

These units give you discipline level knowledge, skills and application competencies from introductory through intermediate, culminating with advanced graduate level units. They focus on developing your knowledge, practice and higher-order thinking to an advanced level.

Complementary studies options

Complementary studies may be taken as a second major of 96 credit points or two minors of 48 credit points each. Experiential minors in work integrated learning as well as student exchange are also available.

Second majors

A second major provides the opportunity for you to undertake significant studies in a second Urban Development discipline such as Property Economics, Construction Management, Architectural Studies, Accountancy, Applied Economics and Finance. Second majors are also designed to provide diverse professional skills and knowledge beyond the traditional reaches of the built environment curriculum and can offer a range of study options in other fields.

Minors

Minors will allow you undertake studies in a companion discipline. They are designed to provide you with introductory to intermediate level knowlege and skills in areas complementary to your studies. You can choose a minor from other built environment disciplines. There are also minors designed to distinguish students in the employment marketplace with complementary non-discipline' skills and competencies that you can choose from a range of inter- and intra-faculty disciplines.

Pathways to further study

The (UD01) Bachelor of Urban Development (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates may be eligible for discipline relevant masters and/or doctoral level programs.

International Course structure

Your QUT Bachelor of Urban Development (Honours) (Urban and Regional Planning) degree consists of 384 credit points (32 units) arranged as follows:

a) 72 credit points (6 units) of Urban Development Core units, which includes a Work Integrated Learning unit that requires completion of workplace learning.

b) 216 credit points (18 units) of Urban and Regional Planning discipline units

c) 96 credit points of complementary studies comprising of either a Second Major (8 unit set) or two Minors (4 unit set each).

Urban Development Core Units

These units will engage you in understanding Urban Development from a range of disciplinary and multidisciplinary perspectives, expose you to the various outcomes available for pursuing studies in this field and introduce the fundamental basis for policy and practice. Later core units, together with the discipline specific units, will progress your learning development through experiential and enquiry based learning in collaborative environments.

Urban and Regional Planning Major Discipline Units

These units give you discipline level knowledge, skills and application competencies from introductory through intermediate, culminating with advanced graduate level units. They focus on developing your knowledge, practice and higher-order thinking to an advanced level.

Complementary Studies Options

Complementary studies may be taken as a Second Major of 96 credit points or two Minors of 48 credit points each. Experiential minors in Work Integrated Learning as well as student exchange are also available.

Second Majors

A second major provides the opportunity for you to undertake significant studies in a second Urban Development discipline such as Property Economics, Construction Management, Architectural Studies, Accountancy, Applied Economics and Finance. Second majors are also designed to provide diverse professional skills and knowledge beyond the traditional reaches of the built environment curriculum and can offer a range of study options in other fields.

Minors

Minors will allow you undertake studies in a companion discipline. They are designed to provide you with introductory to intermediate level knowlege and skills in areas complementary to your studies. You can choose a minor from other built environment disciplines. There are also minors designed to distinguish students in the employment marketplace with complementary 'non-discipline' skills and competencies that you can choose from a range of inter- and intra-faculty disciplines.

Pathways to Further Study

The (UD01) Bachelor of Urban Development (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates may be eligible for discipline relevant Masters and/or Doctoral level programs.

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Bachelor of Urban Development (Honours) (Urban and Regional Planning)

Code	Title
Year 1, Semester 1	
USB100	Understanding the Built Environment
UXB130	History of the Built Environment
UXB131	Imagine Planning and Design
UXB132	Urban Analysis
Year 1, Semester 2	
BSB113	Economics
LWS012	Urban Development Law
UXB133	Urban Studies
UXB134	Land Use Planning
Year 2, Semester 1	
UXB230	Site Planning
UXB231	Planning Processes
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 2, Semester 2	
UXB232	Negotiation and Conflict Resolution
UXB233	Planning Law
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
USB300	Property Development
UXB330	Urban Design
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 2	
UXB301	Work Integrated Learning Built Environment
SEB701 Work Integrated Learning is replaced by UXB301 from S2, 2017	
UXH331	Environmental Analysis and Planning
UXB332	Transport Planning
2nd Major/Minor unit	
Year 4, Semester 1	
UXH300	Research Methods Built Environment
UXH400-1	Research Project 1 - Part A
UXH430	Planning Theory and Ethics
UXH431	Urban Planning Practice
Year 4, Semester 2	
UXH400-2	Research Project 1 - Part B
UXH432	Community Planning
UXH433	Regional Planning
2nd Major/Minor unit	

Bachelor of Property Economics

Handbook

Year	2017
QUT code	UD05
CRICOS	080478K
Duration (full-time)	3 years
OP	11
Rank	76
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9900 per year full-time (96 credit points)
International fee (indicative)	2017: $27800 per year full-time (96 credit points)
Total credit points	288
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Connie Susilawati; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths A, B or C
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with (4, SA) sound achievement.

International Subject prerequisites

- Maths A, B or C

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Overview

The Bachelor of Property Economics provides the theory and practical understanding of the role that property plays in the Australian and international economy. In addition the course provides details on the role of the numerous property professionals who assess, develop, value, finance and manage all classes of public and private property. The course is designed for students who have an interest in the role that property plays in the Australian and international economy and have a desire to participate in ensuring that the property industry remains economically and environmentally sustainable and meets the social needs of all members of society.

The course will present you with:
• Diverse perspectives to encourage your spirit of inquiry
• Engaging experiences in the classroom, in the field and with leading industry professionals
• Flexible study choices and the opportunity to prepare for a range of property careers in the public and private sector
• Relevant subject matter designed to enable you to make a difference by applying property economics to known problems
• Coherent studies which have been carefully designed to prepare you for your introduction into the property industry

Course Design

Your QUT Bachelor of Property Economics degree consists of 288 credit points (24 units) arranged as follows:

(a) 72 credit points (6 units) of Property Economics Core units, which includes a Work Integrated Learning unit that requires completion of 30 days of workplace learning.
(b) 120 credit points (10 units) of Property Economics discipline units
(c) 96 credit points of complementary studies comprising of either a Second Major (8 unit set) or two Minors (4 unit set each).

Property Economics Core Units
These units will engage you in understanding property economics from a range of disciplinary and multidisciplinary perspectives, expose you to the various outcomes available for pursuing studies in this field, and introduce the fundamental basis for policy and practice. Later core units, together with the discipline specific units, will progress your learning development through experiential and enquiry based learning in collaborative environments.

Property Economics Discipline Units
These units give you discipline level knowledge, skills and application competencies from introductory through intermediate, culminating with graduate level units. They focus on developing knowledge, practice and higher order thinking.

Complementary Studies Options

Second Major:

A choice of one second major from:

Urban Development disciplines:

• Urban and Regional Planning Studies
• Urban Development Construction
• Accountancy
• Applied Economics and Finance

(additional second major choices for

property economics are currently under development)

Minors:

A choice of two minors from the lists below:

Urban Development disciplines:

• Property Valuation Accreditation Minor *(Extension Minor)*
To meet the educational requirements for professional accreditation and membership of the Royal Institution of Chartered Surveyors (RICS) valuation pathway, the educational standards required for those graduates who wish to become Certified Practising Valuers (CPV) with the Australian Property Institute(API); the Valuers Registration Board of Queensland and the Board of Valuers, Appraisers and Estate Agents Malaysia (BOVEA) educational requirements, students will require the Property Valuation Accreditation Minor (48cps). This may be taken as Complementary Studies and comprises the following units: USB243 Property Legislation, USB246 Transaction Process, USB342 Property Software, USB343 Boutique Valuations

• Urban and Regional Planning Studies
• Residential Construction
• Administration in Construction
• Building Economics

Other disciplines:

• Language Minors – University Wide Options
• University Wide Minors

Professional Recognition

This degree is accredited by the Australian Property Institute (API) and meets the membership requirements of a Certified Property Practitioner (CPP). With completion of the Property Valuation Accreditation Minor (Property Software, Boutique Valuation, Property Legislation, Transaction Process) this degree meets the additional educational requirements for professional accreditation and membership of the Royal Institution of Chartered Surveyors (RICS) valuation pathway; the Australian Property Institute (API) – Certified Practising Valuers (CVP); the Valuers Registration Board of Queensland; and the Board of Valuers, Appraisers and Estate Agents (BOVEA), Malaysia.

Pathways to Further Study

The QUT Bachelor of Property Economics is located at Level 7 of the Australian Qualifications Framework (AQF). Eligible graduates may continue their studies in this discipline with an additional honours year in (UD10) Bachelor of Property Economics (Honours).

Domestic Course structure

The QUT Bachelor of Property Economics degree consists of 288 credit points (24 units) arranged as follows:

a) 72 credit points (six units) of property economics core units, which includes a work integrated learning unit that requires completion of 30 days of workplace learning

b) 120 credit points (10 units) of property economics discipline units

c) 96 credit points of complementary studies comprising of either a second major (eight unit set) or two minors (four unit set each).

Property economics core units

These units will engage you in understanding property economics from a range of disciplinary and multidisciplinary perspectives, expose you to the various outcomes available for pursuing studies in this field and introduce the fundamental basis for policy and practice. Later core units, together with the discipline specific units, will progress your learning development through experiential and enquiry based learning in collaborative environments.

Property economics discipline units

These units give you discipline level knowledge, skills and application competencies from introductory through intermediate, culminating with graduate level units. They focus on developing knowledge, practice and higher-order thinking.

Complementary studies options

Complementary studies may be taken as a second major of 96 credit points or two minors of 48 credit points each. Experiential minors in work integrated learning as well as student exchange are also available.

Second majors

A second major provides the opportunity for you to undertake significant studies in a second urban development discipline such as construction management, urban and regional planning, accountancy or applied economics and finance. Second majors are also designed to provide diverse professional skills and knowledge beyond the traditional reaches of the built environment curriculum and can offer a range of study options in other fields.

Minors

Minors will allow you undertake studies in a companion discipline. They are designed to provide you with introductory to intermediate level knowledge and skills in areas complementary to your studies. You can choose a minor from other built environment disciplines. There are also minors designed to distinguish students in the employment marketplace with complementary non-discipline skills and competencies that you can choose from a range of inter- and intra-faculty disciplines.

Property valuation accreditation minor

This is an extension minor option for property economics students and may be taken as part of your complementary studies. The minor will provide you with additional property valuation studies: to meet the educational requirements for professional accreditation and membership of the Royal Institution of Chartered Surveyors (RICS) valuation pathway; to meet the educational standards required for those graduates who wish to become Certified Practising Valuers (CVP) with the Australian Property Institute (API); and to meet the Valuers Registration Board of Queensland and the Board of Valuers, Appraisers and Estate Agents Malaysia educational requirements.

Pathways to further study

The QUT Bachelor of Property Economics is located at Level 7 of the Australian Qualifications Framework (AQF). Eligible graduates may continue their studies in this discipline with an additional honours year in (UD10) Bachelor of Property Economics (Honours).

International Course structure

The QUT Bachelor of Property Economics degree consists of 288 credit points (24 units) arranged as follows:

a) 72 credit points (6 units) of Property Economics Core units, which includes a Work Integrated Learning unit that requires completion of 30 days of workplace learning.

b) 120 credit points (10 units) of Property Economics discipline units

c) 96 credit points of complementary studies comprising of either a Second Major (8 unit set) or two Minors (4 unit set each).

Property Economics Core Units

These units will engage you in understanding property economics from a range of disciplinary and multidisciplinary perspectives, expose you to the various outcomes available for pursuing studies in this field and introduce the fundamental basis for policy and practice. Later core units, together with the discipline specific units, will progress your learning development through experiential and enquiry based learning in collaborative environments.

Property Economics Discipline Units

These units give you discipline level knowledge, skills and application competencies from introductory through intermediate, culminating with graduate level units. They focus on developing knowledge, practice and higher-order thinking.

Complementary Studies Options

Complementary studies may be taken as a Second Major of 96 credit points or two Minors of 48 credit points each. Experiential minors in Work Integrated Learning as well as student exchange are also available.

Second Majors

A second major provides the opportunity for you to undertake significant studies in a second Urban Development discipline such as Construction Management, Urban and Regional Planning, Accountancy or Applied Economics and Finance. Second majors are also designed to provide diverse professional skills and knowledge beyond the traditional reaches of the built environment curriculum and can offer a range of study options in other fields.

Minors

Minors will allow you undertake studies in a companion discipline. They are designed to provide you with introductory to intermediate level knowledge and skills in areas complementary to your studies. You can choose a minor from other built environment disciplines. There are also minors designed to distinguish students in the employment marketplace with complementary 'non-discipline' skills and competencies that you can choose from a range of inter- and intra-faculty disciplines.

Property Valuation Accreditation Minor

This is an extension minor option for property economics students and may be taken as part of your complementary studies. The minor will provide you with additional property valuation studies: to meet the educational requirements for professional accreditation and membership of the Royal Institution of Chartered Surveyors (RICS) valuation pathway; to meet the educational standards required for those graduates who wish to become Certified Practising Valuers (CVP) with the Australian Property Institute (API); and to meet the Valuers Registration Board of Queensland and the Board of Valuers, Appraisers and Estate Agents Malaysia educational requirements.

Pathways to Further Study

The QUT Bachelor of Property Economics is located at Level 7 of the Australian Qualifications Framework (AQF). Eligible graduates may continue their studies in this discipline with an additional honours year in (UD10) Bachelor of Property Economics (Honours).

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2

Code	Title
Year 1, Semester 1	
USB100	Understanding the Built Environment
USB140	Imagine Property
BSB113	Economics
UXB110	Residential Construction
Year 1, Semester 2	
LWS012	Urban Development Law
UXB134	Land Use Planning
USB141	Building Big
USB242	Experience Property
Year 2, Semester 1	
USB240	Market Analysis
USB241	Money and Wealth
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 2, Semester 2	
USB244	Asset Performance
USB245	Property Investment Analysis
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
USB300	Property Development
USB341	Money and Property
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 2	
USB344	Property Project
UXB301	Work Integrated Learning Built Environment
SEB701 Work Integrated Learning is replaced by UXB301 from Semester 2 2017	
2nd Major/Minor unit	
2nd Major/Minor unit	

Bachelor of Urban Development

Handbook

Year	2017
QUT code	UD40
CRICOS	056387B
Duration (full-time)	4 years
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	384
Credit points full-time sem.	48
Dom. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Andrea Blake; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.0

Bachelor of Urban Development (Construction Management)

Handbook

Year	2017
QUT code	UD40
CRICOS	056387B
Duration (full-time)	4 years
OP	8
Rank	85
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July This course is available to international students who are eligible for a year or more of Advanced Standing (Credit).
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Andrea Blake; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Dr Carol Hon

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA) of English and one of the following: Maths A, Maths B or Maths C.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.0

Course Update

As of 2014, this course will only be available for UD40 continuing students. New students should refer to UD01 Bachelor of Urban Development (Honours)(Construction Management)

For further assistance, please contact sef.enquiry@qut.edu.au

Overview

The course is concerned with the management of the overall process of construction projects and provides detailed understanding of project development from conception, through planning and construction to commissioning and maintenance. It develops skills in how to manage people, materials, equipment and plant while focusing on issues such as cost, time, quality, safety and environment. It educates students to become effective construction managers with comprehensive technological knowledge, management principles and communication skills.

Minors

For accreditation purposes you are required to undertake specified minors which will include employment practice. Please refer to your course rules before making your selection.

CONSTRUCTION MANAGEMENT Minor Options

- All students must take the Construction Management Applications Minor, which is an AIB accreditation requirement.
- Your second minor may be taken from anywhere in QUT but must be from outside UD40.

Special Course Requirements

All students are required to obtain a minimum of 80 days of approved construction management industrial experience.

Professional Recognition

This course has been accredited by the Australian Institute of Building.

Domestic Course structure

Work Integrated Learning unit

In your final year students are required to undertake 100 days approved industrial experience in the construction or allied field.

Your course

Year 1

You start your studies with foundation units including residential construction and engineering, basic professional learning (including an introduction to research writing), sustainability, land stewardship, urban development economics and building measurement.

Year 2

You build on your knowledge of construction management by studying low-rise commercial construction and engineering, structural engineering, building measurement and estimating, construction-related law, building services engineering, basic business skills and minor study units.

Year 3

You increase your knowledge by studying high-rise construction and advanced structural and formwork design. You extend your management learning in business skills, contract administration and statutory construction law and further engage in your chosen minor study units as well as building your research capabilities.

Year 4

Your final year draws together previous learning and integrates it with more advanced concepts of strategic

management, program and planning management, and human resources planning, preparing you for entry to the construction industry at managerial level. You have the opportunity to gain interdisciplinary skills via your minor units and specialist skills in advanced construction management and research methods and report writing.

Minors

For accreditation purposes you are required to undertake specified minors which will include employment practice. Please refer to your course rules before making your selection.

Construction management minor options

- All students must take the Construction Management Applications Minor, which is an AIB accreditation requirement.
- Your second minor may be taken from anywhere in QUT but must be from outside UD40. The Project Collaboration Minor is highly recommended for students in Construction Management.

International Course structure

Work Integrated Learning unit

In your final year students are required to undertake 100 days approved industrial experience in the construction or allied field.

Your course

Year 1

You start your studies with foundation units including residential construction and engineering, basic professional learning (including an introduction to research writing), sustainability, land stewardship, urban development economics and building measurement.

Year 2

You build on your knowledge of construction management by studying low-rise commercial construction and engineering, structural engineering, building measurement and estimating, construction-related law, building services engineering, basic business skills and minor study units.

Year 3

You increase your knowledge by studying high-rise construction and advanced structural and formwork design. You extend your management learning in business skills, contract administration and statutory construction law and further engage in your chosen minor study units as well as building your research capabilities.

Year 4

Your final year draws together previous learning and integrates it with more advanced concepts of strategic management, program and planning management, and human resources planning, preparing you for entry to the construction industry at managerial level. You have the opportunity to gain interdisciplinary skills via your minor units and specialist skills in advanced construction management and research methods and report writing.

Minors

For accreditation purposes you are required to undertake specified minors which will include employment practice. Please refer to your course rules before making your selection.

Construction management minor options

- All students must take the Construction Management Applications Minor, which is an AIB accreditation requirement.
- Your second minor may be taken from anywhere in QUT but must be from outside UD40. The Project Collaboration Minor is highly recommended for students in Construction Management.

Sample Structure

Course Updates

A number of changes have been made to Science and Engineering Faculty courses. From 2014, first year core units in UD40 Bachelor of Urban Development have been recoded, renamed or discontinued. To see how these changes affect you, please consult the unit replacement table below in conjuction with the course structure. Affected Study Plans are being updated to reflect the changes. Please contact the Faculty if you have any concerns.

UD40 Unit Replacement Table

Semesters

Code	Title
Year 1 - Semester 1	
ENB100	Engineering and Sustainability
DEB100	Design and Sustainability
[UDB100 is replaced by ENB100/EGB100 or DEB100 from 2014]	
USB100	Understanding the Built Environment
[UDB101 is replaced by USB100 from 2014]	
UXB110	Residential Construction
[UDB110 is replaced by UXB110 from 2014]	
UXB112	Introduction to Structures
[UDB111 is replaced by UXB112 from 2014]	
Year 1- Semester 2	
BEB112	Principles of Project Management
[UDB200 is replaced by BEB112 from 2014]	
BSB113	Economics
[UDB104 is replaced by BSB113 from 2014]	
UXB114	Integrated Construction
[UDB112 is replaced by UXB114 from 2014]	
UXB113	Measurement for Construction
[UDB113 is replaced by UXB113 from 2014]	
Year 2 - Semester 1	
UXB210	Commercial Construction
[UDB210 is replaced by UXB210 from 2015]	
UXB212	Designing Structures
[UDB211 is replaced by UXB212 from 2015]	
UXB213	Advanced Measurement for Construction
[UDB212 is replaced by UXB213 from 2015]	
UXB214	Construction Estimating
[UDB213 is replaced by UXB214 from 2015]	
Year 2 - Semester 2	
LWS012	Urban Development Law
[UDB102 is replaced by LWS012 from 2014]	
BEB110	Organising and Managing Project Team
[UDB214 is replaced by BEB110 from 2016]	

Bachelor of Urban Development (Construction Management)

UXB211	Building Services
[UDB215 is replaced by UXB211 from 2015]	
Minor unit	
Year 3 - Semester 1	
UXH310	High-rise Construction
[UDB310 is replaced by UXH310 from 2016]	
EGB121	Engineering Mechanics
[UDB311 is replaced by EGB121 from 2016]	
UXH311	Contract Administration
[UDB312 is replaced by UXH311 from 2016]	
Minor unit	
Year 3 - Semester 2	
UXH314	Modern Construction Business
[UDB202 is replaced by UXH314 from 2016]	
UXH312	Construction Legislation
[UDB314 is replaced by UXH312 from 2016]	
BEB114	Project Financing
[UDB420 is replaced by BEB114 from 2016]	
Minor unit	
Year 4 - Semester 1	
SEB701	Work Integrated Learning 1
UXH300	Research Methods Built Environment
[UDB301 is replaced by UXH300 from 2017]	
UXH411	Programming and Scheduling
[UDB313 is replaced by UXH411 from 2017]	
Minor unit	
From 2017	
UXH300	Research Methods Built Environment
UXH411	Programming and Scheduling
USB300	Property Development
Minor Unit	
Year 4 - Semester 2	
BEB801	Project 1
UDB302	Development Process
UXH321	Cost Planning and Controls
[UDB316 is replaced by UXH321 from 2016]	
UXH410	Strategic Construction Management
[UDB410 is replaced by UXH410 from 2017]	
[UDB302 is replaced by USB300 from 2017]	
From 2017	
BEB801	Project 1
UXH321	Cost Planning and Controls
UXH410	Strategic Construction Management
UXB301	Work Integrated Learning Built Environment

Bachelor of Urban Development (Property Economics)

Handbook

Year	2017
QUT code	UD40
CRICOS	056387B
Duration (full-time)	4 years
OP	10
Rank	80
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	384
Credit points full-time sem.	48
Dom. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Andrea Blake; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Dr Connie Susilawati

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA) of English and one of the following: Maths A, Maths B or Maths C.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.0

Course Update

As of 2014, this course will only be available for UD40 continuing students. New students should refer to UD05 Bachelor of Property Economics

For further assistance, please contact sef.enquiry@qut.edu.au

Overview

This course is concerned with all aspects of property - investment, asset management, development, valuation and research - with a focus on finance and on the commercial property market sector.

Professional Recognition

The 4 year degree has professional recognition from the Australian Property Institute, the Valuers' Registration Board of Queensland, and from the Royal Institution of Chartered Surveyors.

Special Course Requirements

You are required to obtain a minimum of 30 days approved professional work experience.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Second Majors and Minors

In your final two years you will have the opportunity to undertake a major (8 units) or 2 minors (4 units each) from other areas of interest. Please refer to your course rules before making your selection.

PROPERTY ECONOMICS Second Major and Minor Options

Second Major:
A second major from anywhere in QUT

Minors:
Two minors from anywhere in QUT. Remember if you take two Minors one Minor must be from outside of your course.

Domestic Course structure

Work Integrated Learning unit

Students are required to obtain a minimum of 30 days approved professional work experience.

Your course

Year 1

You are introduced to land management, sustainability, construction, economics, law and fundamental property valuation practice. You will have a preliminary understanding of the knowledge required of a property professional including factors that influence the value of property. You develop verbal and written communication skills and work collaboratively on projects with other students.

Year 2

You further develop skills in applying analytical problem solving in property valuation, investment analysis and property development. You continue to build your knowledge and skills in planning and urban development, urban economics, and law associated with interests in land and property transactions. Focus is maintained on developing written and verbal communication to a professional standard. You develop an understanding of your future role as a property professional.

Year 3

You collaborate with other students in related disciplines to determine the feasibility of a hypothetical development project. You explore property finance and property and asset management and

hone research expertise. Guest lectures from leading industry practitioners and industry-focused workshops are a feature. You also embark on a specialist focus through elective major/minor units in your chosen specialisation.

Year 4

You continue to specialise in your chosen area of study through elective major/minor units. You develop skills in property taxation, property marketing and real estate practice. These property skills are supplemented by business study which provides you with a useful understanding of commercial enterprise. The year culminates with industry-focused learning experiences including a work integrated learning unit to ensure you are workforce ready.

Second major and minors

In your final two years you will have the opportunity to undertake a major (8 units) or 2 minors (4 units each) from other areas of interest. Please refer to your course rules before making your selection.

Property economics second major and minor options

Second Major:

- A second major from anywhere in QUT

Minors:

- Two minors from anywhere in QUT. Remember if you take two Minors one Minor must be from outside of your course.

International Course structure

Work Integrated Learning unit

Students are required to obtain a minimum of 30 days approved professional work experience.

Your course

Year 1

You are introduced to land management, sustainability, construction, economics, law and fundamental property valuation practice. You will have a preliminary understanding of the knowledge required of a property professional including factors that influence the value of property. You develop verbal and written communication skills and work collaboratively on projects with other students.

Year 2

You further develop skills in applying analytical problem solving in property valuation, investment analysis and property development. You continue to build your knowledge and skills in planning and urban development, urban economics, and law associated with interests in land and property transactions. Focus is maintained on developing written and verbal communication to a professional standard. You develop an understanding of your future role as a property professional.

Year 3

You collaborate with other students in related disciplines to determine the feasibility of a hypothetical development project. You explore property finance and property and asset management and hone research expertise. Guest lectures from leading industry practitioners and industry-focused workshops are a feature. You also embark on a specialist focus through elective major/minor units in your chosen specialisation.

Year 4

You continue to specialise in your chosen area of study through elective major/minor units. You develop skills in property taxation, property marketing and real estate practice. These property skills are supplemented by business study which provides you with a useful understanding of commercial enterprise. The year culminates with industry-focused learning experiences including a work integrated learning unit to ensure you are workforce ready.

Second major and minors

In your final two years you will have the opportunity to undertake a major (8 units) or 2 minors (4 units each) from other areas of interest. Please refer to your course rules before making your selection.

Property economics second major and minor options

Second Major:

- A second major from anywhere in QUT

Minors:

Two minors from anywhere in QUT. Remember if you take two Minors one Minor must be from outside of your course.

Sample Structure

Course Updates

A number of changes have been made to Science and Engineering Faculty courses. From 2014, first year core units in UD40 Bachelor of Urban Development have been recoded, renamed or discontinued. To see how these changes affect you, please consult the unit replacement table below in conjuction with the course structure. Affected Study Plans are being updated to reflect the changes. Please contact the Faculty if you have any concerns.

UD40 Unit Replacement Table

Semesters

- Year 1 - Semester 1
- Year 1- Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2

Code	Title
Year 1 - Semester 1	
ENB100	Engineering and Sustainability
DEB100	Design and Sustainability
[UDB100 is replaced by ENB100/EGB100 or DEB100 from 2014]	
USB100	Understanding the Built Environment
[UDB101 is replaced by USB100 from 2014]	
UXB110	Residential Construction
[UDB110 is replaced by UXB110 from 2014]	
USB140	Imagine Property
[UDB140 is replaced by USB140 from 2014]	
Year 1- Semester 2	
BEB112	Principles of Project Management
[UDB200 is replaced by BEB112 from 2014]	
LWS012	Urban Development Law
[UDB102 is replaced by LWS012 from 2014]	
BSB113	Economics
[UDB104 is replaced by BSB113 from 2014]	
USB141	Building Big
[UDB141 is replaced by USB141 from 2014]	
Year 2 - Semester 1	
UXB134	Land Use Planning
[UDB240 is replaced by UXB134 from 2015]	
USB243	Property Legislation

Bachelor of Urban Development (Property Economics)

[UDB241 is replaced by USB243 from 2015]	
USB242	Experience Property
[UDB242 is replaced by USB242 from 2015]	
EFB223	Economics 2
[UDB243 is replaced by EFB223 from 2014]	
Year 2 - Semester 2	
USB246	Transaction Process
[UDB244 is replaced by USB246 from 2014]	
USB240	Market Analysis
[UDB245 is replaced by USB240 from 2015]	
USB245	Property Investment Analysis
[UDB246 is replaced by USB245 from 2014]	
USB343	Boutique Valuations
[UDB247 is replaced by USB343 from 2015]	
Year 3 - Semester 1	
USB344	Property Project
[UDB301 is replaced by USB344 from 2017. USB344 is a SEM-2 unit.]	
USB341	Money and Property
[UDB341 is replaced by USB341 from 2015]	
Second Major/Minor unit	
Second Major/Minor unit	
Year 3 - Semester 2	
UDB302	Development Process
USB244	Asset Performance
[UDB344 is replaced by USB244 from 2014]	
Second Major/Minor unit	
Second Major/Minor unit	
From 2017	
USB244	Asset Performance
Second Major/Minor unit	
Second Major/Minor unit	
Second Major/Minor unit	
Year 4 - Semester 1	
UDB340	Agency Practice and Marketing
USB241	Money and Wealth
[UDB342 is replaced by USB241 from 2014]	
Second Major/Minor unit	
Second Major/Minor unit	
From 2017	
UDB340	Agency Practice and Marketing
USB241	Money and Wealth
USB300	Property Development
Second Major/Minor unit	
Year 4 - Semester 2	
SEB701	Work Integrated Learning 1
BSB115	Management
[UDB202 is replaced by BSB115 from 2016]	
Second Major/Minor unit	
Second Major/Minor unit	

Bachelor of Urban Development (Quantity Surveying)

Handbook

Year	2017
QUT code	UD40
CRICOS	056387B
Duration (full-time)	4 years
OP	11
Rank	76
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July This course is available to international students who are eligible for a year or more of Advanced Standing (Credit).
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Andrea Blake; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Mr Jason Gray

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA) of English and one of the following: Maths A, Maths B or Maths C.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.0

Course Update

As of 2014, this course will only be available for UD40 continuing students. New students should refer to UD01 Bachelor of Urban Development (Honours)(Quantity Surveying and Cost Engineering)

For further assistance, please contact sef.enquiry@qut.edu.au

Overview

The course prepares students to work as quantity surveyors or building economists. The course covers building management, cost planning and control, building development techniques, building research, computer software application, measurement of construction, and legal issues. **Applicants will be initially enrolled in the Bachelor of Urban Development (Construction Management) but will be directed to take suitable units to graduate with a Quantity Surveying primary major.**

Special Course Requirements

You are required to gain a minimum of 80 days of approved employment in the final year of the course.

Professional Recognition

This course is fully accredited by the Australian Institute of Quantity Surveyors, The Royal Institution of Chartered Surveyors (Honours version only), and the Board of Quantity Surveyors Malaysia (with Property Economics second major).

Second Majors and Minors

You will have the opportunity to undertake a second major (8 units) or 2 minors (4 units each) to enhance and broaden your knowledge in a related field or area of interest.

Please refer to your course rules before making your selection.

QUANTITY SURVEYING Second Major and Minor Options

Second Major:
Choose one second major from the following options:

Property Economics Development
Property Economics Investment
Property Economics Valuation
Urban and Regional Planning
Architectural Studies

OR

Minors:
Two minors from anywhere in QUT.
Remember if you take two Minors, one Minor must be from outside the UD40 course.

Domestic Course structure

Work Integrated Learning unit

Students are required to gain a minimum of 80 days of approved employment in the final year of the course.

Your course

Year 1

Complete a common first year with construction management students. You start your studies with foundation units including residential construction and engineering, basic professional learning (including an introduction to research writing), sustainability, land stewardship, urban development economics and building measurement.

Year 2

Apply your construction body of knowledge introduced in first year, and begin to develop the range of graduate capabilities through an introduction to more complex construction techniques, methodologies and management issues

relating to your degree in quantity surveying. Your analytical and technical skills continue to be honed through commercial construction and the environment. The law and business skills you gain in the second year will also help further develop lifelong learning skills.

Year 3
Increase your knowledge and skills in construction and quantity surveying. You are introduced to in-depth knowledge of the economic, managerial, legal and technical aspects of construction activity, such as high-rise construction, cost planning and control. Undertake second majors/minors to extend construction and quantity surveying knowledge. These allow you to broaden your education by undertaking units from other faculties within the University, subject to accreditation requirements.

Year 4
In your final year you complete your selected second major/minors, involving a major project which brings together all your previously mastered skills, and advances your communication skills in dissertation writing and seminar presentation. You also complete work integrated learning in the quantity surveying discipline, ensuring you are workforce ready.

Second major and minors
You will have the opportunity to undertake a second major (8 units) or 2 minors (4 units each) to enhance and broaden your knowledge in a related field or area of interest.

Please refer to your course rules before making your selection.

Quantity surveying second major and minor options

Second Major:

Choose one second major from the following options:
- Property Economics Development
- Property Economics Investment
- Property Economics Valuation
- Urban and Regional Planning
- Architectural Studies

OR

Minors:

Choose two minors from the following options. Remember, if you take two Minors, one Minor must be from outside your course:
- Property Economics Development
- Property Economics Investment
- Property Economics Valuation
- Urban and Regional Planning
- Architectural Studies
- Work Integrated Learning Minor
- Sustainability Minor
- International Minor
- Indigenous Studies Minor
- Research Minor
- Project Collaboration Minor
- Collaborative Digital Design Minor

A minor from anywhere in QUT.

International Course structure
Work Integrated Learning unit
Students are required to gain a minimum of 80 days of approved employment in the final year of the course.

Your course
Year 1
Complete a common first year with construction management students. You start your studies with foundation units including residential construction and engineering, basic professional learning (including an introduction to research writing), sustainability, land stewardship, urban development economics and building measurement.

Year 2
Apply your construction body of knowledge introduced in first year, and begin to develop the range of graduate capabilities through an introduction to more complex construction techniques, methodologies and management issues relating to your degree in quantity surveying. Your analytical and technical skills continue to be honed through commercial construction and the environment. The law and business skills you gain in the second year will also help further develop lifelong learning skills.

Year 3
Increase your knowledge and skills in construction and quantity surveying. You are introduced to in-depth knowledge of the economic, managerial, legal and technical aspects of construction activity, such as high-rise construction, cost planning and control. Undertake second majors/minors to extend construction and quantity surveying knowledge. These allow you to broaden your education by undertaking units from other faculties within the University, subject to accreditation requirements.

Year 4
In your final year you complete your selected second major/minors, involving a major project which brings together all your previously mastered skills, and advances your communication skills in dissertation writing and seminar presentation. You also complete work integrated learning in the quantity surveying discipline, ensuring you are workforce ready.

Second major and minors
You will have the opportunity to undertake a second major (8 units) or 2 minors (4 units each) to enhance and broaden your knowledge in a related field or area of interest.

Please refer to your course rules before making your selection.

Quantity surveying second major and minor options

Second Major:

Choose one second major from the following options:
- Property Economics Development
- Property Economics Investment
- Property Economics Valuation
- Urban and Regional Planning
- Architectural Studies

OR

Minors:

Choose two minors from the following options. Remember, if you take two Minors, one Minor must be from outside your course:
- Property Economics Development
- Property Economics Investment
- Property Economics Valuation
- Urban and Regional Planning
- Architectural Studies
- Work Integrated Learning Minor
- Sustainability Minor
- International Minor
- Indigenous Studies Minor
- Research Minor
- Project Collaboration Minor
- Collaborative Digital Design Minor

A minor from anywhere in QUT.

Sample Structure
Course Updates
A number of changes have been made to Science and Engineering Faculty courses. From 2014, some units in UD40 Bachelor of Urban Development have been recoded, renamed or discontinued. To see how these changes affect you, please consult the unit replacement table below in conjuction with the course structure. Affected Study Plans are being updated to reflect the changes. Please contact the Faculty if you have any concerns.

Bachelor of Urban Development (Quantity Surveying)

UD40 Unit Replacement Table

Semesters

Code	Title
Year 1 - Semester 1	
ENB100	Engineering and Sustainability
OR	
DEB100	Design and Sustainability
[UDB100 is replaced by ENB100/EGB100 or DEB100 from 2014]	
USB100	Understanding the Built Environment
[UDB101 is replaced by USB100 from 2014]	
UXB110	Residential Construction
[UDB110 is replaced by UXB110 from 2014]	
UXB112	Introduction to Structures
[UDB111 is replaced by UXB112 from 2014]	
Year 1- Semester 2	
BEB112	Principles of Project Management
[UDB200 is replaced by BEB112 from 2014]	
BSB113	Economics
[UDB104 is replaced by BSB113 from 2014]	
UXB114	Integrated Construction
[UDB112 is replaced by UXB114 from 2014]	
UXB113	Measurement for Construction
[UDB113 is replaced by UXB113 from 2014]	
Year 2 - Semester 1	
UXB210	Commercial Construction
[UDB210 is replaced by UXB210 from 2015]	
UXB213	Advanced Measurement for Construction
[UDB212 is replaced by UXB213 from 2015]	
UXB214	Construction Estimating
[UDB213 is replaced by UXB214 from 2015]	
UXB121	Imagine Quantity Surveying and Cost Engineering
[UDB216 is replaced by UXB121 from 2015]	
Year 2 - Semester 2	
LWS012	Urban Development Law
[UDB102 is replaced by LWS012 from 2014]	
UXH314	Modern Construction Business
[UDB202 is replaced by UXH314 from 2016]	
UXB211	Building Services
[UDB215 is replaced by UXB211 from 2014]	
Second Major/Minor unit	
Year 3 - Semester 1	
UXH310	High-rise Construction
[UDB310 is replaced by UXH310 from 2016]	
UXH311	Contract Administration
[UDB312 is replaced by UXH311 from 2016]	
UXB220	Services and Heavy Engineering Measurement
[UDB315 is replaced by UXB220 from 2016]	
Second Major/Minor unit	
Year 3 - Semester 2	
UXH312	Construction Legislation
[UDB314 is replaced by UXH312 from 2016]	
UXH321	Cost Planning and Controls
[UDB316 is replaced by UXH321 from 2016]	
Second Major/Minor unit	
Second Major/Minor unit	
Year 4 - Semester 1	
SEB701	Work Integrated Learning 1
UXH300	Research Methods Built Environment
[UDB301 is replaced by UXH300 from 2017]	
Second Major/Minor unit	
Second Major/Minor unit	
From 2017	
UXH300	Research Methods
	Built Environment
USB300	Property Development
Second Major/Minor unit	
Second Major/Minor unit	
Year 4 - Semester 2	
BEB801	Project 1
UDB302	Development Process
Second Major/Minor unit	
Second Major/Minor unit	
From 2017	
BEB801	Project 1
UXB301	Work Integrated Learning Built Environment
Second Major/Minor unit	
Second Major/Minor unit	

Bachelor of Urban Development (Urban and Regional Planning)

Handbook

Year	2017
QUT code	UD40
CRICOS	056387B
Duration (full-time)	4 years
OP	8
Rank	85
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	384
Credit points full-time sem.	48
Dom. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Andrea Blake; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Dr Severine Mayere

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.0

Course Update

As of 2014, this course will only be available for UD40 continuing students. New students should refer to UD01 Bachelor of Urban Development (Honours)(Urban and Regional Planning)

For further assistance, please contact sef.enquiry@qut.edu.au

Professional Recognition

This course has received accreditation from the Planning Institute of Australia.

Overview

This course aims to educate students to become innovative leaders in professional planning, with the capacity and will to create a better world. Graduates will apply perceptive sensibilities and skills to create sustainable natural and human environments. The QUT course emphasises creative design and inclusive community planning. You will have the opportunity to work on live projects with local councils and community groups.

Second Major and Minors

You will have the opportunity to undertake two minors (four units each) to broaden your appreciation of fields related to urban and regional planning. One of these is the Applications Minor, that fulfils important Planning Institute of Australia accreditation requirements. The other minor you are able to choose for yourself; for example: landscape architecture, urban design, surveying, property economics, law or business management. Students wishing to undertake a second major rather than the accredited course model are advised to contact the Study Area Coordinator.

Please refer to your course rules before making your selection.

URBAN AND REGIONAL PLANNING Minor Options

Choose two minors from the following options. Remember, one Minor must be from outside the UD40 course:

Urban and Regional Planning Applications Minor (accreditation requirement)
Landscape Architecture
Spatial Science
Architectural Studies
Property Economics Development
Property Economics Investment
Property Economics Valuation
Sustainability Minor
International Minor
Indigenous Studies Minor
Research Minor
Project Collaboration Minor
Collaborative Digital Design Minor
A minor from anywhere in QUT

Domestic Course structure

Your course

Year 1

Your first year as a planning student will give you a strong foundation in design skills, experience in working in teams on planning projects, and an understanding of the importance of the social, economic and environmental contexts of planning activity.

Year 2

In your second year as a planning student, you will develop your practical skills through working on site-related projects and development assessment. The second year of the degree also explores the philosophical and theoretical basis of planning.

Year 3

In the third year of your degree, you will focus on the application of design skills on a broader scale through urban design principles. You will also be prepared for the public role of planners through negotiation and conflict resolution, and investigate the importance of environmental planning.

Year 4
In the final year of your degree, you will integrate the skills and capacities developed throughout the course through a major research project, a challenging exploration of planning theory and ethics, and real-world planning projects that move from the community through to the regional level.

Second major and minors
You will have the opportunity to undertake a second major (8 units) or 2 minors (4 units each) to enhance and broaden your knowledge in a related field or area of interest.

Please refer to your course rules before making your selection.

Urban and regional planning second major and minor options

Second Major:

Choose one second major from the following options:

- Architectural Studies
- Landscape Architecture
- Spatial Science
- Property Economics Development
- Property Economics Investment
- Property Economics Valuation
- Construction Management
- Construction Management Residential Construction

OR

Minors:

Choose two minors from the following options. Remember, if you take two Minors, one Minor must be from outside your course:

- Urban and Regional Planning Applications Minor (accreditation requirement)
- Landscape Architecture
- Spatial Science
- Architectural Studies
- Property Economics Development
- Property Economics Investment
- Property Economics Valuation
- Sustainability Minor
- International Minor
- Indigenous Studies Minor
- Research Minor
- Project Collaboration Minor
- Collaborative Digital Design Minor

A minor from anywhere in QUT.

International Course structure

Your course
Year 1
Your first year as a planning student will give you a strong foundation in design skills, experience in working in teams on planning projects, and an understanding of the importance of the social, economic and environmental contexts of planning activity.

Year 2
In your second year as a planning student, you will develop your practical skills through working on site-related projects and development assessment. The second year of the degree also explores the philosophical and theoretical basis of planning.

Year 3
In the third year of your degree, you will focus on the application of design skills on a broader scale through urban design principles. You will also be prepared for the public role of planners through negotiation and conflict resolution, and investigate the importance of environmental planning.

Year 4
In the final year of your degree, you will integrate the skills and capacities developed throughout the course through a major research project, a challenging exploration of planning theory and ethics, and real-world planning projects that move from the community through to the regional level.

Second major and minors
You will have the opportunity to undertake a second major (8 units) or 2 minors (4 units each) to enhance and broaden your knowledge in a related field or area of interest.

Please refer to your course rules before making your selection.

Urban and regional planning second major and minor options

Second Major:

Choose one second major from the following options:

- Architectural Studies
- Landscape Architecture
- Spatial Science
- Property Economics Development
- Property Economics Investment
- Property Economics Valuation
- Construction Management
- Construction Management Residential Construction

OR

Minors:

Choose two minors from the following options. Remember, if you take two Minors, one Minor must be from outside your course:

- Urban and Regional Planning Applications Minor (accreditation requirement)
- Landscape Architecture
- Spatial Science
- Architectural Studies
- Property Economics Development
- Property Economics Investment
- Property Economics Valuation
- Sustainability Minor
- International Minor
- Indigenous Studies Minor
- Research Minor
- Project Collaboration Minor
- Collaborative Digital Design Minor

A minor from anywhere in QUT.

Sample Structure
Course Updates
A number of changes have been made to Science and Engineering Faculty courses. From 2014, some units in UD40 Bachelor of Urban Development have been recoded, renamed or discontinued. To see how these changes affect you, please consult the unit replacement table below in conjuction with the course structure. Affected Study Plans are being updated to reflect the changes. Please contact the Faculty if you have any concerns.

UD40 Unit Replacement Table

Semesters
- Year 1 - Semester 1
- Year 1- Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2

Code	Title
Year 1 - Semester 1	
ENB100	Engineering and Sustainability
OR	
DEB100	Design and Sustainability
[UDB100 is replaced by ENB100/EGB100 or DEB100 from 2014]	
USB100	Understanding the Built Environment
[UDB101 is replaced by USB100 from 2014]	
UXB131	Imagine Planning and

Bachelor of Urban Development (Urban and Regional Planning)

	Design
[UDB161 is replaced by UXB131 from 2014]	
UXB130	History of the Built Environment
[UXB130 is replaced by UXB130 from 2014]	
Year 1- Semester 2	
BSB113	Economics
[UDB104 is replaced by BSB113 from 2014]	
UXB134	Land Use Planning
[UDB163 is replaced by UXB134 from 2014]	
UXB133	Urban Studies
[UDB164 is replaced by UXB133 from 2014]	
BEB112	Principles of Project Management
[UDB200 is replaced by BEB112 in 2014; then either BEB110 (S1) or BEB112 (S2) thereafter.]	
Year 2 - Semester 1	
UXB230	Site Planning
[UDB265 is replaced by UXB230 from 2015]	
UXB231	Planning Processes
[UDB266 is replaced by UXB231 from 2015]	
EVB211	Geographic Information Systems and Science
[UDB281 is replaced by EVB211 from 2016]	
Minor unit	
Year 2 - Semester 2	
LWS012	Urban Development Law
[UDB102 is replaced by LWS012 from 2014]	
BSB115	Management
[UDB202 is replaced by BSB115 from 2016]	
UXB233	Planning Law
[UDB267 is replaced by UXB233 from 2015]	
Minor unit	
Year 3 - Semester 1	
UXB330	Urban Design
[UDB368 is replaced by UXB330 from 2016]	
UXB232	Negotiation and Conflict Resolution
[UDB369 is replaced by UXB232 from 2016]	
EVB210	Geospatial Mapping
[UDB381 is replaced by EVB210 from 2017]	
Minor unit	
From 2017	
UXB330	Urban Design
UXB232	Negotiation and Conflict Resolution
EVB210	Geospatial Mapping
USB300	Property Development
Year 3 - Semester 2	
UXB332	Transport Planning
[BEB801 is replaced by UXB332 from SEM-2 2016]	
UDB302	Development Process
UXH331	Environmental Analysis and Planning
[UDB370 is replaced by UXH331 from 2016]	
Minor unit	
From 2017	
UXB332	Transport Planning
UXH331	Environmental Analysis and Planning
UXB301	Work Integrated Learning Built Environment
MInor Unit	
Year 4 - Semester 1	
SEB701	Work Integrated Learning 1
UXH300	Research Methods Built Environment
[UDB301 is replaced by UXH300 from 2017]	
UXH431	Urban Planning Practice
[UDB471 is replaced by UXH431 from 2017]	
UXH430	Planning Theory and Ethics
[UDB473 is replaced by UXH430 from 2017]	
From 2017	
UXH300	Research Methods Built Environment
UXH431	Urban Planning Practice
UXH430	Planning Theory and Ethics
Minor Unit	
Year 4 - Semester 2	
BEB802	Project 2
UXH432	Community Planning
[UDB472 is replaced by UXH432 from 2017]	
UDB474	Regional Planning Practice
UXH433	Regional Planning
[UDB475 is replaced by UXH433 from 2017]	

Bachelor of Engineering (Electrical)/Bachelor of Mathematics

Handbook

Year	2017
QUT code	IF21
CRICOS	020329J
Duration (full-time)	5 years
OP	7
Rank	87
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	480
Credit points full-time sem.	48
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Jacob Coetzee (Electrical); Timothy Moroney (Mathematics)

Domestic Entry requirements

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator.

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (English (4, SA) and Maths B (4, SA)). Recommended study: Chemistry, Maths C and Physics.

International Entry requirements

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator.

International Subject prerequisites

- Maths B
- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies (English (4, SA) and Maths B (4, SA)). Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Professional Recognition

This course meets the requirements for membership of Engineers Australia (EA). EA is a signatory to the Washington Accord, which permits graduates from accredited member courses to work in various countries across the world. The course also meets the coursework requirements for accredited graduate membership of the Mathematical Society of Australia, the Statistical Society of Australia, and the Australian Society of Operations Research.

Financial Support

You should consider applying for an industry-sponsored mathematics bursary or an engineering scholarship to help you financially throughout your studies. For further information visit scholarships.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Domestic Course structure

Course Design

Students are required to complete 480 credit points comprised of 288 credit points from the Bachelor of Engineering (Electrical) program and 192 credit points from the Bachelor of Mathematics program.

Engineering component:

- 8 Engineering Core units (96 credit points)
- 16 Major Core units (192 credit points)

Work Integrated Learning unit

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator.

Mathematics component:

- 6 Core units (72 credit points), which are further divided into 4 Mathematics Core units (48 credit points), and 2 Core Option units (24 credit points) selected from an approved list.
- 10 Major Core units (120 credit points)

Mathematics Core Units

These units give you the grounding in mathematical theory and practice upon which your major units will build, and also

provide an introductory taste of each of the three majors: applied and computational mathematics; decision science; and statistical science.

Core Option Units
You may choose from a wide variety of introductory units from other disciplines offered at QUT, or you may choose additional mathematics units. The additional mathematics units include a unit specially designed to assist students without a background of successful study in Mathematics C at high school; an alternative unit aimed at high achieving students that explores some interesting and unusual aspects of mathematics in some detail; and a unit introducing the field of computational and simulation science which combines mathematics, science and computing to simulate real-world problems.

International Course structure

Course Design

Students are required to complete 480 credit points comprised of 288 credit points from the Bachelor of Engineering (Electrical) program and 192 credit points from the Bachelor of Mathematics program.

Engineering component:

- 8 Engineering Core units (96 credit points)
- 16 Major Core units (192 credit points)

Work Integrated Learning unit
Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator.

Mathematics component:

- 6 Core units (72 credit points), which are further divided into 4 Mathematics Core units (48 credit points), and 2 Core Option units (24 credit points) selected from an approved list.
- 10 Major Core units (120 credit points)

Mathematics Core Units
These units give you the grounding in mathematical theory and practice upon which your major units will build, and also provide an introductory taste of each of the three majors: applied and computational mathematics; decision science; and statistical science.

Core Option Units
You may choose from a wide variety of introductory units from other disciplines offered at QUT, or you may choose additional mathematics units. The additional mathematics units include a unit specially designed to assist students without a background of successful study in Mathematics C at high school; an alternative unit aimed at high achieving students that explores some interesting and unusual aspects of mathematics in some detail; and a unit introducing the field of computational and simulation science which combines mathematics, science and computing to simulate real-world problems.

Bachelor of Corporate Systems Management/Bachelor of Information Technology

Handbook

Year	2017
QUT code	IT07
CRICOS	063028M
Duration (full-time)	4 years
OP	12
Rank	75
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	384
Credit points full-time sem.	48
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Mr Mike Roggenkamp (Information Technology Major), Dr Taizan Chan (Corporate Systems Management Major); ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA) of English and one of the following: Maths A, Maths B or Maths C.

International Subject prerequisites

- English

You must have achieved study at a level comparable to Australian Year 12 or in recognised post-secondary studies in English and one of the following: Maths A, Maths B or Maths C.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Update

This course is currently under review. The course structure is being redeveloped and is subject to university approval.
For course updates please visit www.qut.edu.au/coursechanges

Career Outcomes

The professional skills gained from this double degree are applicable across all business domains. As a graduate, you can expect to work in roles such as a business analyst or consultant, information and communication technologies project manager or information technology infrastructure manager, information analyst, business process manager, information manager, database manager, data communications specialist, systems analyst or programmer.

Professional Recognition

This course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

Pathways to Futher Studies

In 2001, the Faculty introduced an accelerated Honours program to increase the number of Bachelor of Information Technology students continuing their studies to complete the Honours year. The program allowed selected high achieving students the opportunity to undertake one postgraduate unit in the final semester of their a BIT degree (or double degree) which would be counted both for completion of the degree and towards the Honours program. The program also provided students with the opportunity to commence their Honours studies over the Summer Semester.

An alternative to the Honours program is the Master of Information Technology (Research). Students who complete a BIT degree (or double degree) with a grade point average equal to, or greater than 5 (7 point scale) and who have decided against enrolling in an Honours program, could undertake this course. In addition, students may wish to enrol in the re-designed postgraduate coursework Masters which has ten specialisations allowing students to either extend their area of interest or specialise in other areas at the Masters level.

Study Areas

IT07 will not have nominated majors and minors and consequently there will not be a Study Area A shown on a graduate's parchment. Instead, IT07 will have specialisations. The specialisation areas that will be available for students will include:

- Business Process Management
- Data Warehousing
- Digital Societies
- Enterprise Systems
- Information Management
- Network Systems
- Software Engineering
- Web Technologies

Cooperative Education

The Faculty's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your degree. Companies that QUT's Coop Ed students have worked with include

Energex, Boeing, CITEC, CSC Mining, Environmental Protection Agency, Dialog, UNiTAB, RACQ and many Queensland Government departments. The Coop Ed Program is available to Australian citizens and permanent residents only.

Find out more about the Cooperative Education Program.

Bachelor of Corporate Systems Management/Bachelor of Games and Interactive Entertainment

Handbook

Year	2017
QUT code	IT09
CRICOS	063029K
Duration (full-time)	4 years
OP	12
Rank	75
OP Guarantee	Yes
Campus	Kelvin Grove, Gardens Point
Total credit points	
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Mike Roggenkamp (Games), Dr Taizan Chan (Corp. Systems); ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (English (4, SA) and Maths A, B or C (4, SA)).

International Subject prerequisites

- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies (English (4, SA) and Maths A, B or C (4, SA)).

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Update

This course is currently under review. The course structure is being redeveloped and is subject to university approval.
For course updates please visit www.qut.edu.au/coursechanges

Career Outcomes

Graduates may find roles as an entrepreneur in the games environment, or in management roles within the games and entertainment industry, for example, project manager, production manager, producer, content manager, business development manager, product manager or marketer.

Professional Recognition

This course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

Cooperative Education Program

The Faculty's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your degree. Companies that QUT's Coop Ed students have worked with include Energex, Boeing, CITEC, CSC Mining, Environmental Protection Agency, Dialog, UNiTAB, RACQ and many Queensland Government departments. The Coop Ed Program is available to Australian citizens and permanent residents only.

Find out more about the Cooperative Education Program.

Bachelor of Business/Bachelor of Information Technology

Handbook

Year	2017
QUT code	IX22
CRICOS	059595C
Duration (full-time)	4 years
OP	8
Rank	84
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9900 per year full-time (96 credit points)
International fee (indicative)	2017: $27900 per year full-time (96 credit points)
Total credit points	384
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Director of Studies, QUT Business School; email: bus@qut.edu.au; or, SEF Enquiry; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Associate Prof Belinda Luke (Accountancy); Dr Louise Kelly (Advertising); Dr Radhika Lahiri (Economics); Dr Mark Doolan (Finance); Dr Ali Muhammad (Human Resource Management); Dr Shane Mathews (International Business); Dr Kavoos Mohannak (Management); Prof Larry Neale (Marketing); and Dr Anne Lane (Public Relations) bus@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths A, B or C
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

International Subject prerequisites

- Maths A, B or C

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Overview

This double degree will give you a broad base of commercial knowledge in business and information technology. Business is highly dependent on information technology infrastructure, so having the expertise in both makes you more attractive to employers looking for multidisciplined staff.

Businesses look for staff who can communicate well from both the business and information technology disciplines, so having the skills and knowledge across both gives you a competitive edge over other graduates. You will have the opportunity to complement your information technology studies in either information systems or computer science with a business major in accountancy, advertising, economics, finance, human resource management, international business, management, marketing or public relations.

Career Outcomes

This double degree will give you the particular skills to acquire a role requiring knowledge in both business and information technology. These include business and systems analyst, systems manager, product manager for an information technology product, team leader for multidisciplinary staff, pre-sales consulting, after-sales support, technical manager or consultant. Future career prospects include chief financial officer, chief information officer and chief technical officer.

Study Areas

IX22 has nominated majors in Information Systems and Computer Science in the Information Technology component of the degreee. There will now be a Study Area A shown on a graduate's parchment.

Professional Recognition

The Bachelor of Business degree may, subject to choice of major, allow graduates to satisfy the academic requirements for membership to a number of professional bodies. Further information is available from the discipline schools.

This course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

Domestic Course structure

Students are required to complete 384 credit points comprised of 192 credit points from the Bachelor of Information Technology program and 192 credit points from the Bachelor of Business program.

Business component:

- Eight Business School core units (96 credit points) *
- Eight major core units (96 credit points)

*Accounting major students complete six business core units and 10 accountancy major units to allow them to complete professional requirements.

Information Technology component:

- Six (6) Core IT units (72 credit points - 48cp + 24cp core options)
- Ten (10) major core units (120 credit points)

Bachelor of Business/Bachelor of Information Technology

International Course structure

Students are required to complete 384 credit points comprised of 192 credit points from the Bachelor of Information Technology program and 192 credit points from the Bachelor of Business program.

Business component:

- Eight Business School core units (96 credit points) *
- Eight major Core units (96 credit points)

*Accounting major students complete six business core units and 10 accountancy major units to allow them to complete professional requirements.

Information Technology component:

- Six (6) core IT units (72 credit points - 48cp + 24cp core options)
- Ten (10) major core units (120 credit points)

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
IT Core Unit	
IT Core Unit	
Business School Unit	
Business School Unit	
Year 1, Semester 2	
IT Core Unit	
IT Core Unit	
Business School Unit	
Business School Unit	
Year 2, Semester 1	
IT Core Unit Option	
IT Core Unit Option	
Business School Unit	
Business School Unit	
Year 2, Semester 2	
IT Major Unit	
IT Major Unit	
Business School Unit	
Business School Unit	
Year 3, Semester 1	
IT Major Unit	
IT Major Unit	
Business School Unit	
Business School Unit	
Year 3, Semester 2	
IT Major Unit	
IT Major Unit	
Business School Unit	
Business School Unit	
Year 4, Semester 1	
IT Major Unit	
IT Major Unit	
Business School Unit	
Business School Unit	
Year 4, Semester 2	
IT Major Unit	
IT Major Unit	
Business School Unit	
Business School Unit	

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
Year 1, Semester 2	
IFB104	Building IT Systems
IFB130	Database Management
Year 2, Semester 1	
IFB103	Designing for IT
IT Core Unit Option	
Year 2, Semester 2	
CAB201	Programming Principles
CAB202	Microprocessors and Digital Systems
Year 3, Semester 1	
CAB203	Discrete Structures
CAB302	Software Development
Year 3, Semester 2	
CAB303	Networks
IFB299	IT Project Design and Development
Year 4, Semester 1	
CAB301	Algorithms and Complexity
IFB398	Capstone Project (Phase 1)
Year 4, Semester 2	
IFB399	Capstone Project (Phase 2)
Select one of:	
CAB401	High Performance and Parallel Computing
CAB402	Programming Paradigms
CAB403	Systems Programming

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
Year 1, Semester 2	
IFB104	Building IT Systems
IFB130	Database Management
Year 2, Semester 1	
IFB103	Designing for IT
IT Core Unit Option	
Year 2, Semester 2	
IAB201	Modelling Information Systems
IAB202	Business of Information Technology
Year 3, Semester 1	
IAB203	Business Process Modelling
IAB204	Business Analysis
Year 3, Semester 2	
IAB205	Corporate Systems
IFB299	IT Project Design and Development
Year 4, Semester 1	
IFB398	Capstone Project (Phase 1)
Select one of:	
IAB302	Information Systems Consulting

IAB303	Business Intelligence
IAB304	Project Management
Year 4, Semester 2	
IAB301	Enterprise Architecture
IFB399	Capstone Project (Phase 2)

Bachelor of Science/Bachelor of Business

Handbook

Year	2017
QUT code	IX23
CRICOS	078352J
Duration (full-time)	4 years
OP	8
Rank	84
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9600 per year full-time (96 credit points)
International fee (indicative)	2017: $31200 per year full-time (96 credit points)
Total credit points	384
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Graham Johnson (Science); ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au; or, Director of Studies, QUT Business School, bus@qut.edu.au
Discipline Coordinator	Associate Prof Belinda Luke (Accountancy); Dr Louise Kelly (Advertising); Dr Radhika Lahiri (Economics); Dr Mark Doolan (Finance); Dr Ali Muhammad (Human Resource Management); Dr Shane Mathews (International Business); Dr Kavoos Mohannak (Management); Prof Larry Neale (Marketing); Dr Anne Lane (Public Relations); Dr Marion Bateson (Biological Science); Dr James Blinco (Chemistry); Dr Luke Nothdurft (Earth Science); Dr Andrew Baker (Environmental Science); Prof Nunzio Motto (Physics) Science and Engineering: sef.enquiry@qut.edu.au; Business: bus@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

Recommended Study: At least one of Chemistry, Physics, Biology, Earth Science, Geography or Maths C. We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended Study: At least one of Chemistry, Physics, Biology, Earth Science, Geography or Maths C.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Overview

Your business degree will give you a broad base of commercial knowledge as well as the opportunity to major in a specific business area. This understanding of business makes you more attractive to employers, even if you wish to work predominantly in a science-based career.

Aim

Through the combination of science and business, you will equip yourself for an exciting career at the cutting edge of scientific innovation within a range of public, private and non-profit industries.

Career outcomes

By combining your science studies with business you will develop the entrepreneurial skills necessary to sell your abilities to a range of employers. As well as the range of science-based careers available such as a scientific modeller, engineering software developer, scientific programmer, and computational scientist you could expect to gain employment as a consultant, marketer, or project manager within firms developing and taking scientific research to the marketplace.

Professional membership

Both degrees allow you to satisfy the requirements of membership of the relevant professional body for your chosen majors.

Non-standard attendance

Field work is a requirement of some areas of science.

Domestic Course structure

Students are required to complete 384 credit points comprised of 192 credit points from the Bachelor Science program and 192 credit points from the Bachelor of Business program.

Business component:

- eight Business School core units (96 credit points) *
- eight major core units (96 credit points)

*Accounting major students complete six business core units and 10 accountancy major units to allow them to complete professional requirements.

International Course structure

Students are required to complete 384 credit points comprised of 192 credit points from the Bachelor Science program and 192 credit points from the Bachelor of Business program.

Business component:

- eight Business School Core units (96 credit points) *
- eight Major Core units (96 credit points)

*Accounting major students complete six business core units and 10 accountancy major units to allow them to complete professional requirements.

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1

Bachelor of Science/Bachelor of Business

Code	Title
Year 1, Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
SEB115	Experimental Science 1
SEB116	Experimental Science 2
[As of 2015, 1st year units SEB101, SEB102 and SEB114 have been replaced by SEB104, SEB115 and SEB116.]	
Year 1, Semester 2	
Business School Unit	
Business School Unit	
Science Major Unit	
Science Major Unit	
Year 2, Semester 1	
Business School Unit	
Business School Unit	
Science Major Unit	
Science Major Unit	
Year 2, Semester 2	
Science Major Unit	
Science Major Unit	
Science Core Options	
Science Core Options	
Year 3, Semester 1	
Business School Unit	
Business School Unit	
Science Major Unit	
Science Major Unit	
Year 3, Semester 2	
Business School Unit	
Business School Unit	
Science Major Unit	
Science Major Unit	
Year 4, Semester 1	
Business School Unit	
Business School Unit	
Business School Unit	
Business School Unit	
Year 4, Semester 2	
Business School Unit	
Business School Unit	
Business School Unit	
Business School Unit	

Bachelor of Business/Bachelor of Engineering (Civil, Electrical or Mechanical)

Handbook

Year	2017
QUT code	IX28
CRICOS	061649J
Duration (full-time)	5 years
OP	8
Rank	84
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	
Credit points full-time sem.	48
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Science & Engineering Faculty Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822 or, Director of Studies, QUT Business School; email: bus@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Accountancy, finance, economics and marketing majors also requires 4 SA in Maths A, B or C.

International Subject prerequisites

- Maths B
- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Accountancy, Finance, Economics and Marketing majors also requires 4 SA in Maths A, B or C.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Career Outcomes

Electrical and computer engineers design, install and maintain electrical, electronic, telecommunications and computing systems on behalf of governments and private companies. Graduates of the Bachelor of Business are skilled in many aspects of business including: accountancy, advertising, finance, economics, human resource management, international business, management, marketing and public relations.

Overview

Students combine engineering knowledge in electronics, computer systems, telecommunications and electric power with a business course majoring in one of accountancy, advertising, economics, finance, human resource management, international business, management, marketing or public relations.

Professional Recognition

This degree meets the requirements for membership of Engineers Australia.

Business component: Students may be eligible for membership to a number of professional bodies depending on choice of major and unit selection. Details on professional recognition can be found under the individual majors of the Bachelor of Business (BS05).

Special Course Requirements

A candidate for the degree of Bachelor of Engineering must obtain at least 60 days of industrial employment/practice in an engineering environment as part of the Work Integrated Learning unit, before graduating.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Course Design

Students are required to complete 480 credit points comprised of 288 credit points from the Bachelor of Engineering program and 192 credit points from the Bachelor of Business program. Students supplement the engineering component of this program with the 96 credit point Business School Core units in the Bachelor of Business program together with a 96 credit point Major in one of the following: Accountancy, Advertising, Economics, Finance, Human Resource Management, International Business, Management, Marketing or Public Relations.

Important Information

QUT Business School rules and procedures are outlined in the Business Undergraduate Guidelines booklet. Other useful information can be found on Student Services website.

Domestic Course structure

Students are required to complete 480 credit points comprised of 288 credit points from the Bachelor of Engineering program and 192 credit points from the Bachelor of Business program.

The business component consists of the

Bachelor of Business/Bachelor of Engineering (Civil, Electrical or Mechanical)

96 credit point Business School core units (eight units) together with a 96 credit point major (eight units) in one of the following:

- Accountancy*
- Advertising
- Economics
- Finance
- Human resource management
- International business
- Management
- Marketing
- Public relations.

*Accounting major students complete 6 Business Core Units and 10 Accountancy major units to allow them to complete professional requirements.

International Course structure

Course Design

Students are required to complete 480 credit points comprised of 288 credit points from the Bachelor of Engineering program and 192 credit points from the Bachelor of Business program. Students supplement the engineering component of this program with the 96 credit point Business School Core units in the Bachelor of Business program together with a 96 credit point major in one of the following:

- Accountancy*
- Advertising
- Economics
- Finance
- Human Resource Management
- International Business
- Management
- Marketing
- Public Relations.

*Accounting major students complete 6 Business Core Units and 10 Accountancy major units to allow them to complete professional requirements.

Sample Structure

Course Updates

A number of changes have been made to Science and Engineering Faculty courses. From 2015, units in the Engineering component of IX28 will progressively be recoded, renamed or discontinued (for students who commenced the course prior to 2015). To see how these changes affect you, please consult Engineering unit replacement table below in conjunction with the course structure. Affected Study Plans are being amended to reflect the changes. Please contact the Faculty if you have any concerns.

Engineering Unit Replacement Table

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1
- Year 5, Semester 2

Code	Title
Year 1, Semester 1	
EGB121	Engineering Mechanics
[ENB110 replaced by EGB121 in SEM-2 2015]	
MZB125	Introductory Engineering Mathematics
[MAB125 replaced by MZB125 in 2015]	
OR	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2016]	
Business Unit -1	
Business Unit -2	
Year 1, Semester 2	
EGB120	Foundations of Electrical Engineering
[ENB120 replaced by EGB120 in 2015]	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2016]	
OR	
MXB105	Calculus of One and Two Variables
[MAB127 replaced by MXB105 in SEM-2 2015]	
Business Unit -3	
Business Unit -4	
Year 2, Semester 1	
EGB100	Engineering Sustainability and Professional Practice
[ENB100 replaced by EGB100 in 2015]	
EGB113	Energy in Engineering Systems
[ENB130 replaced by EGB113 in 2015]	
EGB270	Civil Engineering Materials
[ENB273 replaced by EGB270 in 2016]	
EGB121	Engineering Mechanics
OR	
EGB123	Civil Engineering Systems
ENB270 replaced by EGB121 (or EGB123 if EGB121 done previously) in 2017.	
Year 2, Semester 2	
Engineering Unit Option	
[Engineering Unit Option replaces ENB200 in 2015. See Engineering Unit Option List]	
MXB107	Introduction to Statistical Modelling
[MAB233 replaced by MXB107 in SEM-2 2015.]	
Business Unit -5	
Business Unit -6	
Year 3, Semester 1	
EGB111	Foundation of Engineering Design
[ENB150 is replaced by EGB111 from 2015]	
EGB373	Geotechnical Engineering
[ENB272 replaced by EGB373 in 2017. EGB373 is a SEM-2 unit.]	
EGB371	Engineering Hydraulics
[ENB280 replaced by EGB371 in 2017]	
Business Unit -7	
Year 3, Semester 2	
EGB375	Design of Concrete Structures
[ENB276 replaced by EGB375 in 2017. EGB375 is a SEM-1 unit.]	
EGB273	Principles of Construction
[ENB275 replaced by EGB273 in 2016.]	
ENB371	Geotechnical Engineering 2
Business Unit -8	
Year 4, Semester 1	
EGH472	Advanced Highway and Pavement Engineering
[ENB372 replaced by EGH472 in 2017. EGH472 is a SEM-2 unit.]	
EGB376	Steel Design
[ENB375 replaced by EGB376 in 2017. EGB376 is a SEM-2 unit.]	
Business Unit- 9	
Business Unit- 10	
Year 4, Semester 2	
ENB376	Transport Engineering
Business Unit- 13	
Business Unit- 11	
Business Unit- 12	
Year 5, Semester 1	
BEB801	Project 1
ENB378	Water Engineering
ENB471	Design of Concrete Structures and Foundations

Bachelor of Business/Bachelor of Engineering (Civil, Electrical or Mechanical)

Business Unit- 14	
Year 5, Semester 2	
ENB476	Civil Engineering Design Project
SEB701	Work Integrated Learning 1
Business Unit- 15	
Business Unit-16	

Course Updates

A number of changes have been made to Science and Engineering Faculty courses. From 2015, units in the Engineering component of IX28 will progressively be recoded, renamed or discontinued (for students who commenced the course prior to 2015). To see how these changes affect you, please consult Engineering unit replacement table below in conjunction with the course structure. Affected Study Plans are being amended to reflect the changes. Please contact the Faculty if you have any concerns.

Engineering Unit Replacement Table

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1
- Year 5, Semester 2
- Electrical Engineering Selectives

Code	Title
Year 1, Semester 1	
EGB113	Energy in Engineering Systems
[ENB130 replaced by EGB113 in 2015]	
MZB125	Introductory Engineering Mathematics
[MAB125 replaced by MZB125 in 2015]	
OR	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2016]	
Business Unit-1	
Business Unit-2	
Year 1, Semester 2	
EGB120	Foundations of Electrical Engineering
[ENB120 replaced by EGB120 in 2015]	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2016]	
OR	
MXB105	Calculus of One and Two Variables
[MAB127 replaced by MXB105 in SEM-2 2015]	
Business Unit-3	
Business Unit-4	
Year 2, Semester 1	
EGB100	Engineering Sustainability and Professional Practice
[ENB100 replaced by EGB100 in 2015]	
EGB121	Engineering Mechanics
[ENB110 replaced by EGB121 in SEM-2 2015]	
Engineering Unit Option	
[Engineering Unit Option replaced ENB200 in 2015. See Engineering Unit Option List]	
EGB241	Electromagnetics and Machines
OR	
ELEC-OPTIONS	
[ENB250 replaced by EGB241 or ELEC-OPTIONS (if both ENB250 and ENB343 onplan) in 2016.]	
Year 2, Semester 2	
MXB105	Calculus of One and Two Variables
[MAB127 replaced by MXB105 in SEM-2 2015]	
OR	
MXB107	Introduction to Statistical Modelling
[MAB233 replaced by MXB107 in SEM-2 2015]	
Business Unit-5	
Business Unit-6	
Business Unit-7	
Year 3, Semester 1	
EGB111	Foundation of Engineering Design
[ENB150 replaced by EGB111 in 2015]	
EGB348	Electronics
[ENB240 replaced by EGB348 in 2017. EGB348 is a SEM-2 unit.]	
MZB126	Engineering Computation
[ENB246 replaced by MZB126 in 2017]	
Business Unit -8	
Year 3, Semester 2	
EGB242	Signal Analysis
[ENB242 replaced by EGB242 in 2016.]	
ELEC-OPTIONS	
[ENB243 replaced by ENB205 or ELEC-OPTIONS (if both ENB242 and ENB243 onplan) in 2016.]	
CAB202	Microprocessors and Digital Systems
[ENB244 replaced by CAB202 in 2014]	
Business Unit-9	
Year 4, Semester 1	
EGB345	Control and Dynamic Systems
[ENB301 replaced by EGB345 in 2016. EGB345 is a SEM-2 unit.]	
EGB341	Energy Supply and Delivery
[ENB340 replaced by EGB341 in 2017. EGB341 is a SEM-2 unit.]	
OR	
MXB107	Introduction to Statistical Modelling
MAB233 is replaced by MXB107	
EGB240	Electronic Design
[ENB245 replaced by EGB240 in 2016.]	
Business Unit-10	
Year 4, Semester 2	
[ENB345 replaced by EGB340 in 2017. EGB340 is a SEM-1 unit.]	
EGB340	Design and Practice
Business Unit-11	
Business Unit-12	
Business Unit-13	
Year 5, Semester 1	
BEB801	Project 1
SEB701	Work Integrated Learning 1
EGB341	Energy Supply and Delivery
[ENB340 replaced by EGB341 in 2017. EGB341 is a SEM-2 unit.]	
OR	
Electrical Engineering Selectives	
Business Unit- 14	
Year 5, Semester 2	
BEB802	Project 2
ENB344	Industrial Electronics
Business Unit- 15	
Business Unit- 16	
Electrical Engineering Selectives	
EGB339	Introduction to Robotics
[ENB399 replaced by EGB339 in 2016]	
EGH444	Digital Signals and Image Processing
[ENB448 replaced by EGH444 in 2017]	
EGH440	Power Systems Analysis
[ENB452 replaced by EGH440 in 2017]	
ENB453	Power Equipment and Utilisation

Bachelor of Business/Bachelor of Engineering (Civil, Electrical or Mechanical)

ENB456	Energy
[ENB458 replaced by EGH445 in 2017]	
EGH445	Modern Control
MXB107	Introduction to Statistical Modelling
PLEASE NOTE:	
The following units have been discontinued, but will count as a selective:	
ENB457 Controls, Systems and Applications (disc 30/06/2017)	

Course Updates

A number of changes have been made to Science and Engineering Faculty courses. From 2015, units in the Engineering component of IX28 will progressively be recoded, renamed or discontinued (for students who commenced the course prior to 2015). To see how these changes affect you, please consult Engineering unit replacement table below in conjunction with the course structure. Affected Study Plans are being amended to reflect the changes. Please contact the Faculty if you have any concerns..

Engineering Unit Replacement Table

Semesters

Code	Title
Year 1, Semester 1	
EGB121	Engineering Mechanics
[ENB110 replaced by EGB121 in SEM-2 2015]	
MZB125	Introductory Engineering Mathematics
[MAB125 replaced by MZB125 in 2015]	
OR	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2016]	
Business Unit - 1	
Business Unit - 2	
Year 1, Semester 2	
EGB120	Foundations of Electrical Engineering
[ENB120 replaced by EGB120 in 2015]	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MXB106 in 2016]	
OR	
MXB105	Calculus of One and Two Variables
[MAB127 replaced by MXB105 in SEM-2 2015]	
Business Unit - 3	
Business Unit - 4	
Year 2, Semester 1	
EGB100	Engineering Sustainability and Professional Practice
[ENB100 replaced by EGB100 in 2015]	
EGB113	Energy in Engineering Systems
[ENB130 replaced by EGB113 in 2015]	
EGB314	Strength of Materials
[ENB212 replaced by EGB314 in 2016]	
Engineering Unit Option	
[Engineering Unit Option replaces ENB200 in 2015. See Engineering Unit Option List]	
Year 2, Semester 2	
MXB105	Calculus of One and Two Variables
[MAB127 replaced by MXB105 in SEM-2 2015]	
MXB107	Introduction to Statistical Modelling
[MAB233 replaced by MXB107 in SEM-2 2015]	
Business Unit - 5	
Business Unit - 6	
Business Unit - 7	
Year 3, Semester 1	
EGB211	Dynamics
[ENB211 replaced by EGB211 in 2016]	
EGB214	Materials and Manufacturing
[ENB231 replaced by EGB214 in 2016]	
EGB111	Foundation of Engineering Design
[ENB150 replaced by EGB111 in 2015]	
ENB205	Electrical and Computer Engineering
Year 3, Semester 2	
EGB210	Fundamentals of Mechanical Design
[ENB215 replaced by EGB210 in 2016. EGB210 is a SEM-1 unit.]	
EGB323	Fluid Mechanics
[ENB221 replaced by EGB323 in 2016]	
EGB214	Materials and Manufacturing
OR	
EGB336	Lean Manufacturing
[ENB331 replaced by EGB214 (or EGB336 if EGB214 already on plan). EGB214 is a SEM-1 unit.]	
Business Unit -8	
Year 4, Semester 1	
EGB322	Thermodynamics
[ENB222 replaced by EGB322 in 2017. EGB322 is a SEM-2 unit.]	
SEB701	Work Integrated Learning 1
Business Unit - 9	
Business Unit - 10	
Year 4, Semester 2	
MXB107	Introduction to Statistical Modelling
[MAB233 replaced by MXB107 in SEM-2 2015]	
OR	
Mechanical Engineering Selective	
Business Unit - 11	
Business Unit - 12	
Business Unit - 13	
Year 5, Semester 1	
BEB801	Project 1
EGH414	Stress Analysis
[ENB311 replaced by EGH414 in 2017]	
OR	
EGB321	Dynamics of Machines
[ENB312 replaced by EGB321 in 2017]	
OR	
ENB421	Thermodynamics 2
EGB316	Design of Machine Elements
[ENB316 replaced by EGB316 in 2017]	
Business Unit - 14	
Year 5, Semester 2	
BEB802	Project 2
EGH421	Vibration and Control
[ENB313 replaced by EGH421 in 2017. EGH421 is a SEM-1 unit.]	
OR	
EGH420	Mechanical Systems Design
[ENB317 replaced by EGH420 in 2017]	
OR	
EGH423	Fluids Dynamics
[ENB321 replaced by EGH423 in 2017.]	
Business Unit - 15	
Business Unit - 16	
Mechanical Engineering Selectives	
EGB336	Lean Manufacturing
[ENB336 replaced by EGB336 in 2016.]	

EGB339	Introduction to Robotics
[ENB339 replaced by EGB339 in 2016.]	
EGB422	Energy Management
[ENB422 replaced by EGB422 in 2016.]	
EGB423	Heating, Ventilation and Air Conditioning
[ENB423 replaced by EGB423 in 2016.]	
EGB432	Asset Management and Maintenance
[ENB432 replaced by EGB432 in 2016.]	
EGB434	Tribology
[ENB434 replaced by EGB434 in 2016.]	
EGH360	Plant and Process Design
[ENB433 replaced by EGB360 in 2016. EGB360 recoded as EGH360 in 2017.]	
EGH413	Advanced Dynamics
[ENB314 replaced by EGH413 in 2017.]	
ENB333	Operations Management
ENB435	Computer Integrated Manufacturing
MXB107	Introduction to Statistical Modelling

Bachelor of Business/Bachelor of Mathematics

Handbook

Year	2017
QUT code	IX30
CRICOS	059601K
Duration (full-time)	4 years
OP	6
Rank	89
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9900 per year full-time (96 credit points)
International fee (indicative)	2017: $28000 per year full-time (96 credit points)
Total credit points	384
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Director of Studies, QUT Business School; email: bus@qut.edu.au; SEF: Associate Professor Tim Moroney (Mathematics); ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Associate Prof Belinda Luke (Accountancy); Dr Louise Kelly (Advertising); Dr Radhika Lahiri (Economics); Dr Mark Doolan (Finance); Dr Ali Muhammad (Human Resource Management); Dr Shane Mathews (International Business); Dr Kavoos Mohannak (Management); Prof Larry Neale (Marketing); and Dr Anne Lane (Public Relations). TBA (Applied and Computational Mathematics); ASPRO James McGree (Decision Science); and Dr Chris Drovandi (Statistical Science). Business: Student Services - bus@qut.edu.au; Mathematics: Student Services - sef.enquiry@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Overview

Your Business studies will combine the broad knowledge of business practice and in depth studies in at least one business discipline area in the Bachelor of Business with the advanced quantitative skills and problem solving abilities that you will develop with the Bachelor of Mathematics.

You will develop the ability to apply mathematics, statistics, computational methods and decision science to real world problems. You will also gain understanding of the broad principles of Business at the same time as developing the skills and discipline knowledge necessary to enter the business career of your choice.

Career Outcomes

Combining business and mathematics offers diverse and sustainable career opportunities.

Business graduates are equipped to undertake sophisticated economic and financial modelling which is important in business and government decision making. Quantitative analysts are employed by the financial sector in order to optimise returns both in the short and long-term. Graduates may also become actuarial trainees in the insurance and superannuation area although further study is required in order to qualify as an actuary.

Business graduates may find employment as Accountants, Advertising Professionals, Banking and Finance Consultants, Economists, Human Resource Managers, International Business Specialists, Managers, Marketing Officers, Public Relations Officers.

Mathematics graduates are employed across a wide range of areas. These include, but are not limited to, finance, investment, data analytics, defence and national security, research, information technology, environmental science, health, management, marketing, logistics, media, and education. In addition to their knowledge and skills in mathematics, graduates are also highly valued for their analytical and problem-solving skills. Development of skills in communication, problem-solving, critical thinking and teamwork form an integral part of the course.

Favourable career outcomes for Bachelor of Mathematics graduates are likely due to the current demand for qualified statisticians and mathematicians.

Professional Recognition

Both degrees allow you to satisfy the requirements of membership of the relevant professional body for your chosen majors.

Financial Support

You should consider applying for an industry-sponsored mathematics bursary or a business scholarship to help you financially throughout your studies. For further information visit Scholarships.

Domestic Course structure

Students are required to complete 384 credit points comprised of 192 credit points from the Bachelor of Mathematics program and 192 credit points from the Bachelor of Business program.

Business component:

- eight Business School core units (96 credit points) including MGB223

(see below)*
- eight major core units (96 credit points)

*Please note that BSB123 Data Analysis (one of the Business School core units) is not required as the content of MXB107 covers similar topics. MGB223 Entrepreneurship and Innovation replaces BSB123.

*Accounting major students complete six business core units and 10 accountancy major units to allow them to complete professional requirements.

Mathematics component:

- six core units (72 credit points), which are further divided into four mathematics core units (48 credit points), and two core option units (24 credit points) selected from an approved list
- 10 major core units (120 credit points)

Mathematics core units

These units give you the grounding in mathematical theory and practice upon which your major units will build, and also provide an introductory taste of each of the three majors: applied and computational mathematics; decision science; and statistical science.

Core option units

You may choose from a wide variety of introductory units from other disciplines offered at QUT, or you may choose additional mathematics units. The additional mathematics units include a unit specially designed to assist students without a background of successful study in Mathematics C at high school; an alternative unit aimed at high achieving students that explores some interesting and unusual aspects of mathematics in some detail; and a unit introducing the field of computational and simulation science which combines mathematics, science and computing to simulate real-world problems.

International Course structure

Students are required to complete 384 credit points comprised of 192 credit points from the Bachelor of Mathematics program and 192 credit points from the Bachelor of Business program.

Business component:

- eight Business School core units (96 credit points) including MGB223 (see below)*
- eight major core units (96 credit points)

*Please note that BSB123 Data Analysis (one of the Business School core units) is not required as the content of MXB107 covers similar topics. MGB223 Entrepreneurship and Innovation replaces BSB123.

*Accounting major students complete six business core units and 10 accountancy major units to allow them to complete professional requirements.

Mathematics component:

- Six core units (72 credit points), which are further divided into four mathematics core units (48 credit points), and two core option units (24 credit points) selected from an approved list
- 10 major core units (120 credit points)

Mathematics core units

These units give you the grounding in mathematical theory and practice upon which your major units will build, and also provide an introductory taste of each of the three majors: applied and computational mathematics; decision science; and statistical science.

Core option units

You may choose from a wide variety of introductory units from other disciplines offered at QUT, or you may choose additional mathematics units. The additional mathematics units include a unit specially designed to assist students without a background of successful study in Mathematics C at high school; an alternative unit aimed at high achieving students that explores some interesting and unusual aspects of mathematics in some detail; and a unit introducing the field of computational and simulation science which combines mathematics, science and computing to simulate real-world problems.

Sample Structure

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
Business School Unit	
Business School Unit	
Maths Core Unit	
Maths Core Option Unit	
Year 1 Semester 2	
Business School Unit	
Business School Unit	
Maths Common Major Unit	
Maths Common Major Unit	
Year 2 Semester 1	
Business School Unit	
Business School Unit	
Maths Core Unit	
Maths Core Unit	
Year 2 Semester 2	
Business School Unit	
Business School Unit	
Maths Core Unit	
Maths Core Option Unit	
Year 3 Semester 1	
Business School Unit	
Business School Unit	
Maths Common Major Unit	
Maths Major Unit	
Year 3 Semester 2	
Business School Unit	
Business School Unit	
Maths Common Major Unit	
Maths Major Unit	
Year 4 Semester 1	
Business School Unit	
Business School Unit	
Maths Major Unit	
Maths Major Unit	
Year 4 Semester 2	
Business School Unit	
Business School Unit	
Maths Major Unit	
Maths Major Unit (capstone)	

Semesters

- Applied and Computational Mathematics Major unit set:
- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2
- NOTE:

Code	Title
Applied and Computational Mathematics Major unit set:	
Year 1 Semester 1	
MXB102	Abstract Mathematical Reasoning
Maths Core Options Unit**	

Bachelor of Business/Bachelor of Mathematics

OR	
MXB101	Probability and Stochastic Modelling 1
OR	
MXB103	Introductory Computational Mathematics
Year 1 Semester 2	
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
(PLEASE NOTE: you will need to nominate your Maths major in your Study Plan to select MXB105 and MXB106. These units are common to all three Maths majors)	
Year 2 Semester 1	
MXB101	Probability and Stochastic Modelling 1
OR Maths Core Options Unit** (select if completed MXB101 in first year)	
MXB103	Introductory Computational Mathematics
OR Maths Core Options Unit** (select if completed MXB103 in first year)	
Year 2 Semester 2	
MXB107	Introduction to Statistical Modelling
Maths Core Options Unit**	
Year 3 Semester 1	
MXB201	Advanced Linear Algebra
MXB221	Ordinary Differential Equations
Year 3 Semester 2	
MXB202	Advanced Calculus
MXB222	Computational Linear Algebra
Year 4 Semester 1	
MXB321	Applied Transport Theory
MXB322	Partial Differential Equations
Year 4 Semester 2	
MXB323	Dynamical Systems
MXB324	Computational Fluid Dynamics
NOTE:	
** Only TWO (2) Option units may be taken in these 4 unit-slots.	

Semesters

Code	Title
Decision Science Major unit set:	
Year 1 Semester 1	
MXB102	Abstract Mathematical Reasoning
Maths Core Options Unit**	
OR	
MXB101	Probability and Stochastic Modelling 1
OR	
MXB103	Introductory Computational Mathematics
Year 1 Semester 2	
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
(PLEASE NOTE: you will need to nominate your Maths major in your Study Plan to select MXB105 and MXB106. These units are common to all three Maths majors)	
Year 2 Semester 1	
MXB101	Probability and Stochastic Modelling 1
OR Maths Core Options Unit** (select if completed MXB101 in first year)	
MXB103	Introductory Computational Mathematics
OR Maths Core Options Unit** (select if completed MXB103 in first year)	
Year 2 Semester 2	
MXB107	Introduction to Statistical Modelling
Maths Core Options Unit	
Year 3 Semester 1	
MXB201	Advanced Linear Algebra
MXB232	Introduction to Operations Research
Year 3 Semester 2	
MXB202	Advanced Calculus
MXB241	Probability and Stochastic Modelling 2
OR	
CAB201	Programming Principles
Year 4 Semester 1	
MXB332	Optimisation Modelling
MXB341	Statistical Inference
OR	
MXB351	Coding Theory and Graph Theory
Year 4 Semester 2	
MXB334	Operations Research for Stochastic Processes
MXB335	Advanced Optimisation Modelling
NOTE:	
** Only TWO (2) Option units may be taken in these 4 unit-slots.	

Semesters

Code	Title
Statistical Science Major unit set:	
Year 1 Semester 1	
MXB102	Abstract Mathematical Reasoning
Maths Core Options Unit**	
OR	
MXB101	Probability and Stochastic Modelling 1
OR	
MXB103	Introductory Computational Mathematics
Year 1 Semester 2	
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
(PLEASE NOTE: you will need to nominate your Maths major in your Study Plan to select MXB105 and MXB106. These units are common to all three Maths majors)	
Year 2 Semester 1	
MXB101	Probability and Stochastic Modelling 1
OR Maths Core Options Unit** (select if completed MXB101 in first year)	
MXB103	Introductory Computational Mathematics
OR Maths Core Options Unit** (select if completed MXB103 in first year)	
Year 2 Semester 2	
MXB107	Introduction to Statistical Modelling
Maths Core Options Unit**	
Year 3 Semester 1	
MXB201	Advanced Linear Algebra
MXB242	Regression and Design
Year 3 Semester 2	
MXB202	Advanced Calculus
MXB241	Probability and Stochastic Modelling 2
Year 4 Semester 1	
MXB341	Statistical Inference
MXB342	Statistical Techniques

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Year 4 Semester 2	
MXB343	Modelling Dependent Data
MXB344	Generalised Linear Models
NOTE:	
** Only TWO (2) Option units may be taken in these 4 unit-slots.	

Bachelor of Business/Bachelor of Mathematics

Handbook

Year	2017
QUT code	IX37
CRICOS	059601K
Duration (full-time)	4 years
OP	7
Rank	87
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	384
Credit points full-time sem.	48
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Director of Studies, QUT Business School; email: bus@qut.edu.au; SEF Associate Professor Tim Moroney(Mathematics); ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Associate Prof Belinda Luke (Accountancy); Dr Louise Kelly (Advertising); Dr Radhika Lahiri (Economics); Dr Mark Doolan (Finance); Dr Ali Muhammad (Human Resource Management); Dr Shane Mathews (International Business); Dr Kavoos Mohannak (Management); Prof Larry Neale (Marketing); and Dr Anne Lane (Public Relations) Business: Student Services - (07) 3138 2050 Business: Student Services - bus@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (English (4, SA) and Maths B (4, SA)).

International Subject prerequisites

- Maths B
- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies (English (4, SA) and Maths B (4, SA)). Accountancy, Finance, Economics and Marketing majors also require 4 SA in Maths A, B or C.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Update

As of 2014, this course will only be available for IX37 continuing students. IX37 has been replaced by IX30 Bachelor of Business/Bachelor of Mathematics

Professional Recognition

Both degrees allow you to satisfy the requirements of membership of the relevant professional body for your chosen majors. Please refer to the relevant pages in this prospectus for details on the Bachelor of Mathematics and the QUT Business School prospectus for more information on business majors or visit www.qut.edu.au/study

Financial Support

You should consider applying for an industry-sponsored mathematics bursary or a business scholarship to help you financially throughout your studies. For further information visit Scholarships.

Course Design

Students are required to complete 384 credit points comprised of 192 credit points from the Bachelor of Mathematics program and 192 credit points from the Bachelor of Business program.

Business component:
Commencing students from 2009 onwards
• 8 Business School Core units (96 credit points) including MGB223 (see below)*
• 8 Major Core units (96 credit points)

2007-2008 commencing students
• 7 Business School Core units (84 credit points)*
• 9 Major Core units (108 credit points)

*Please note that BSB123 Data Analysis (one of the Business School Core Units) is not required as the content of MAB313 Mathematics of Finance covers similar topics. MGB223 Entrepreneurship and Innovation replaces BSB123.

*Accounting major students complete 6 Business Core Units and 10 Accountancy major units to allow them to complete professional requirements.

* Please note that EFB101 Data Analysis for Business which is normally undertaken in the Majors of Accountancy, Banking & Finance and Economics, is not required as the content will be covered in the statistics units from the mathematics component of the program.

Important Information for Business Students

QUT Business School rules and procedures are outlined in the Business Undergraduate Guidelines.
Other useful information can be found on the Student Services website.

Domestic Course structure

Students are required to complete 384 credit points comprised of 192 credit points from the Bachelor of Mathematics program and 192 credit points from the Bachelor of Business program.

Business component:

- Eight Business School core units (96 credit points) including MGB223 (see below)*
- Eight major units (96 credit points)

*Please note that BSB123 Data Analysis (one of the Business School core units) is

not required as the content of MAB313 Mathematics of Finance covers similar topics. MGB223 Entrepreneurship and Innovation replaces BSB123.

*Accounting major students complete 6 Business core units and 10 Accountancy major units to allow them to complete professional requirements.

International Course structure

Course Design

Students are required to complete 384 credit points comprised of 192 credit points from the Bachelor of Mathematics program and 192 credit points from the Bachelor of Business program.

Business component:

- 8 Business School Core units (96 credit points) including MGB223 (see below)*
- 8 Major Core units (96 credit points)

*Please note that BSB123 Data Analysis (one of the Business School Core Units) is not required as the content of MAB313 Mathematics of Finance covers similar topics. MGB223 Entrepreneurship and Innovation replaces BSB123.

*Accounting major students complete 6 Business Core Units and 10 Accountancy major units to allow them to complete professional requirements.

Sample Structure

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
Business School Core Unit	
Business School Core Unit	
Mathematics Unit	
Mathematics Unit	
Year 1 Semester 2	
Business School Core Unit	
Business School Core Unit	
Mathematics Unit	
Mathematics Unit	
Year 2 Semester 1	
Business School Core Unit	
Business School Core Unit	
Mathematics Unit	
Mathematics Unit	
Year 2 Semester 2	
Business School Core Unit	
Business School Core Unit	
Mathematics Unit	
Mathematics Unit	
Year 3 Semester 1	
Business School Major Unit	
Business School Major Unit	
Mathematics Unit	
Mathematics Unit	
Year 3 Semester 2	
Business School Major Unit	
Business School Major Unit	
Mathematics Unit	
Mathematics Unit	
Year 4 Semester 1	
Business School Major Unit	
Business School Major Unit	
Mathematics Unit	
Mathematics Unit	
Year 4 Semester 2	
Business School Major Unit	
Business School Major Unit	
Mathematics Unit	
Mathematics Unit	

Bachelor of Engineering (Electrical)/Bachelor of Information Technology

Handbook

Year	2017
QUT code	IX54
CRICOS	006384G
Duration (full-time)	5 years
OP	9
Rank	82
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	480
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Jacob Coetzee (Engineering), Mr Mike Roggenkamp (Information Technology); ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	

Domestic Entry requirements

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator.

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (English (4,SA) and Maths B (4,SA)). Recommended study: Chemistry, Maths C and Physics.

International Entry requirements

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator.

International Subject prerequisites

- Maths B
- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies (English (4,SA) and Maths B (4,SA)). Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Update

This course will be offered in 2014, however the course structure is being redeveloped and is subject to university approval.
For course updates please visit www.qut.edu.au/coursechanges

Professional Recognition

This course meets the requirements for membership of Engineers Australia (EA). EA is a signatory to the Washington Accord, which permits graduates from accredited member courses to work in various countries across the world. This course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

Other Course Requirements

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator.

Cooperative Education Program

IT's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your degree. The Coop Ed Program is available to Australian citizens and permanent residents only.

Find out more about the Cooperative Education Program.

Pathways to Further Studies

Students who graduate with an Honours degree in Engineering will be eligible to apply for entry to postgraduate research degrees in appropriate disciplines.

Students who complete a BIT degree (or double degree) with a grade point average equal to, or greater than 5 (7 point scale) and who have decided against enrolling in an Honours program, could undertake this course. In addition, students may wish to enrol in the re-designed postgraduate coursework Masters which has specialisations allowing students to either extend their area of interest or specialise in other areas at the Masters level.

Domestic Course structure

Students are required to complete 480 credit points comprising studies from the Bachelor of Engineering (Electrical) program and the Bachelor of Information Technology.

Bachelor of Engineering (Electrical)/Bachelor of Information Technology

Other Course Requirements

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator.

Students supplement the electrical engineering component of this program with core units in the Bachelor of IT program ;

- Six (6) IT Core units (72 credit points - 48cp + 24cp Core options)

- Ten (10) IT Major Core units (120 credit points)

International Course structure

Course Design

Students are required to complete 480 credit points comprising studies from the Bachelor of Engineering (Electrical) program and the Bachelor of Information Technology.

Other Course Requirements

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator.

Students supplement the electrical engineering component of this program with core units in the Bachelor of IT program ;

- Six (6) IT Core units (72 credit points - 48cp + 24cp Core options)

- Ten (10) IT Major Core units (120 credit points)

Sample Structure

Course Updates

A number of changes have been made to Science and Engineering Faculty courses. From 2015, units in the Engineering component of IX54 will progressively be recoded, renamed or discontinued (for students who commenced the course prior to 2015). To see how these changes affect you, please consult Engineering unit replacement table below in conjunction with the course structure. Affected Study Plans are being amended to reflect the changes. Please contact the Faculty if you have any concerns.

Engineering Unit Replacement Table

Semesters

Code	Title
Year 1 Semester 1	
IFB101	Impact of IT
[INB101 replaced by IFB101 in 2014]	
IFB102	Computer Technology Fundamentals
[INB102 replaced by IFB102 in 2014]	
IFB103	Designing for IT
[INB103 replaced by IFB103 in 2014]	
MZB125	Introductory Engineering Mathematics
[MAB125 replaced by MZB125 in 2015]	
OR	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MZB126 for SEM-1 2015 only. To be replaced by MXB106 from SEM-2 onwards.]	
Year 1 Semester 2	
EGB120	Foundations of Electrical Engineering
[ENB120 replaced by EGB120 in 2015]	
IFB104	Building IT Systems
[INB104 replaced by IFB104 in 2014]	
MXB106	Linear Algebra and Differential Equations
[MAB126 replaced by MZB126 for SEM-1 2015 only. To be replaced by MXB106 from SEM-2 onwards.]	
MXB105	Calculus of One and Two Variables
[MAB127 replaced by MXB105 in SEM-2 2015]	
IT Major Unit	
Year 2 Semester 1	
EGB113	Energy in Engineering Systems
[ENB130 replaced by EGB113 in 2015]	
EGB348	Electronics
[ENB240 replaced by EGB348 in 2017. EGB348 is a SEM-2 unit.]	
MXB107	Introduction to Statistical Modelling
[MAB233 replaced by MXB107 in Sem-2 2015]	
EGB241	Electromagnetics and Machines
OR	
ELEC-OPTIONS	
[ENB250 replaced by EGB241 or ELEC-OPTIONS (if both ENB250 and ENB343 onplan) in 2016.]	
Year 2 Semester 2	
EGB121	Engineering Mechanics
[ENB110 replaced by EGB121 in SEM-2 2015]	
Engineering Unit Option	
[Engineering Unit Option replaces ENB200 in 2015. See Engineering Unit Option List]	
EGB242	Signal Analysis
[ENB242 replaced by EGB242 in 2016]	
ENB205-OPTIONS	
OR	
ELEC-OPTIONS	
[[ENB243 replaced by ENB205 or ELEC-OPTIONS (if both ENB242 and ENB243 on plan) in 2016. ENB205 replaced by ENB205-OPTIONS in 2017.]	
Year 3 Semester 1	
EGB111	Foundation of Engineering Design
[ENB150 replaced by EGB111 in 2015]	
MZB126	Engineering Computation
[ENB246 replaced by MZB126 in 2017]	
EGB240	Electronic Design
[ENB245 replaced by EGB240 in 2016]	
IT Major Unit	
Year 3 Semester 2	
IFB299	IT Project Design and Development
[INB201 replaced by IFB299 in 2015.]	
IT Major Unit	
IT Major Unit	
IT Major Unit	
Year 4 Semester 1	
EGB345	Control and Dynamic Systems
[ENB301 replaced by EGB345 in 2016. EGB345 is a SEM-2 unit.]	
EGB341	Energy Supply and Delivery
[ENB340 replaced by EGB341 in 2017. EGB341 is a SEM-2 unit.]	
EGB342	Telecommunications and Signal Processing
[ENB342 replaced by EGB342 in 2017. EGB342 is a SEM-2 unit.]	
IT Major Unit	
Year 4 Semester 2	
ENB344	Industrial Electronics
EGB340	Design and Practice
[ENB345 replaced by EGB340 in 2017.	

EGB340 is a SEM-1 unit.]	
MXB107	Introduction to Statistical Modelling
[MAB233 replaced by MXB107 in Sem-2 2015]	
OR Electrical Engineering Selective	
IT Major/Core Option	
Year 5 Semester 1	
ELECIT-OPTION1	
[ENB346 replaced by ELECIT-OPTION1 in 2017]	
IFB398	Capstone Project (Phase 1)
[CAB398/IAB398 option replaced by IFB398 in 2017]	
IT Major/Core Option	
Electrical Engineering Selective	
Year 5 Semester 2	
BEB801	Project 1
SEB701	Work Integrated Learning 1
IFB399	Capstone Project (Phase 2)
[CAB399/IAB399 option replaced by IFB399 in 2017]	
IT Major Unit	
Electrical Engineering Selectives	
MXB106	Linear Algebra and Differential Equations
[MAB126/MXB106 must be selected here, if not selected previously.]	
CAB201	Programming Principles
[ENB241 replaced by CAB201 in 2017]	
EGB339	Introduction to Robotics
[ENB399 replaced by EGB339 in 2016]	
EGH444	Digital Signals and Image Processing
[ENB448 replaced by EGH444 in 2017]	
EGH440	Power Systems Analysis
[ENB452 replaced by EGH440 in 2017]	
ENB453	Power Equipment and Utilisation
ENB456	Energy
EGH446	Autonomous Systems
[ENB457 replaced by EGH446 in 2017]	
EGH445	Modern Control
[ENB458 replaced by EGH445 in 2017]	
The following units have been discontinued, but will count as a selective:	
ENB441 Applied Image Processing (disc 31/12/2015)	

Unit List	
Code	Title
CAB201	Programming Principles
CAB202	Microprocessors and Digital Systems
CAB203	Discrete Structures
CAB301	Algorithms and Complexity
CAB302	Software Development
CAB303	Networks
IFB299	IT Project Design and Development
IFB398	Capstone Project (Phase 1)
IFB399	Capstone Project (Phase 2)
Select 12cp from:	
CAB401	High Performance and Parallel Computing
CAB402	Programming Paradigms
CAB403	Systems Programming

Unit List	
Code	Title
IAB201	Modelling Information Systems
IAB202	Business of Information Technology
IAB203	Business Process Modelling
IAB204	Business Analysis
IAB205	Corporate Systems
IFB299	IT Project Design and Development
IAB301	Enterprise Architecture
IFB398	Capstone Project (Phase 1)
IFB399	Capstone Project (Phase 2)
Select 12cp from:	
IAB302	Information Systems Consulting
IAB303	Business Intelligence
IAB304	Project Management

Bachelor of Creative Industries/Bachelor of Information Technology

Handbook

Year	2017
QUT code	IX56
CRICOS	059227E
Duration (full-time)	4 years
OP	11
Rank	76
OP Guarantee	Yes
Campus	Kelvin Grove, Gardens Point
Domestic fee (indicative)	2017: CSP $8100 per year full-time (96 credit points)
International fee (indicative)	2017: $27600 per year full-time (96 credit points)
Total credit points	384
Credit points full-time sem.	48
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Professor Clive Bean (Creative Industries); Mr Mike Roggenkamp (Information Technology); ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	CI: 07 3138 8114 ci@qut.edu.au (Creative Industries); sef.enquiry@qut.edu.au (Science and Engineering Faculty)

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths A, B or C
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

International Subject prerequisites

- Maths A, B or C

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Overview

This double degree allows you to complement your technical skills with creative skills through digital media and film production. You will learn to merge the creative and imaginative with the technical to develop sophisticated and innovative digital products. You can choose to complement your skill set through a range of information technology and creative industries areas of interest to diversify your studies, including:

- animation
- art and design history
- creative and professional writing
- dance studies
- digital media
- entertainment industries
- entrepreneurship
- fashion communication
- film, television and screen game design
- interactive and visual design
- journalism, media and communication
- literary studies
- music
- online environments

Career Outcomes

As a graduate you can enjoy the more creative side of information technology careers including digital media programmer, simulation designer or developer, games producer or designer, sound designer, mobile entertainment and communications developer, user interface developer, knowledge worker in music and sound, web developer and digital product strategist.

Professional Recognition

This course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

Course Design

You will undertake the Bachelor of Creative Industries core units as well as one creative industries major. Your information technology degree component comprises eight core units, four breadth units, and four units in your information technology specialisation.

Study Areas

The Bachelor of Information Technology has majors in Information Systems and Computer Science which will be shown on the a graduate's parchment.

Pathways to Further Studies

On successful completion of this course, you will be eligible to apply for entry into the Bachelor of Creative Industries (Honours), provided you have met entry requirements.

The QUT Bachelor of Information Technology is located at Level 7 of the Australian Qualifications Framework (AQF). Eligible graduates may continue their studies in this discipline with an additional honours year in (IN10) Bachelor of Information Technology (Honours).

Work Integrated Learning

The Faculty's Work Integrated Learning Minor gives you the opportunity of industry placement during your course where you can integrate real experience with what you're learning in your degree. Companies that QUT's students have worked with include Energex, Boeing, CITEC, CSC Mining, Environmental Protection Agency, Dialog, UNiTAB, RACQ and many Queensland Government departments.

Unit Incompatibility/Translation Information

Details on the translation and incompatibility of old and new units is located here:
Undergraduate Translation Table
If you have completed the unit(s) listed under the “Translation Unit Codes” column, you are not permitted to enrol in the listed new code.

Domestic Course structure

You will undertake the Bachelor of Creative Industries core units (96 credit points) as well as 96 credit points from a creative industries major.

The Bachelor of Information Technology degree comprises of:

- 72 credit points (6 units) of information technology core units, which includes 24 credit points (2 units) of option units* selected from an approved list
- 120 credit points (10 units) of major core units (Information Systems or Computer Science).

Study overseas

Study overseas while gaining credit towards your QUT degree with one of our worldwide exchange partners. Overseas study can be for one or two semesters (or during the semester break) and the units you take can be in either degree area, depending on how they match with your QUT course. For more information, visit QUT student exchange.

International Course structure

You will undertake the Bachelor of Creative Industries 96cp core units as well as 96cp from a creative industries major.

The Bachelor of Information Technology degree comprises of ;

- 72 credit points (6 units) of Information Technology Core units, which includes 24 credit points (2 units) of Option Units* selected from an approved list.
- 120 credit points (10 units) of Major Core units (Information Systems or Computer Science).

Study Overseas

Study overseas while gaining credit towards your QUT degree with one of our worldwide exchange partners. Overseas study can be for one or two semesters (or during the semester break) and the units you take can be in either degree area, depending on how they match with your QUT course. For more information, visit QUT student exchange.

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
IT Core Unit	
IT Core Unit	
KKB101	Creative Industries: People and Practices
Creative Industries Major: First Unit	
Year 1, Semester 2	
IT Core Unit	
IT Core Unit	
KKB102	Creative Industries: Making Connections
Creative Industries Major: Second Unit	
Note: Students considering studying overseas in Year 2 Semester 2 must apply by 1 November.	
Year 2, Semester 1	
IT Core Unit Option	
IT Core Unit Option	
A unit from the Level 1 Unit Options (either DXB102 or KPB101 or KVB104):	
DXB102	Visual Communication
KPB101	Introduction to Film, TV and New Media Production
KVB104	Photomedia and Artistic Practice
Creative Industries Major: Third Unit	
Year 2, Semester 2	
IT Major Unit	
IT Major Unit	
A unit from the Level 2 Unit Options (either KTB211 or KXB202):	
KTB211	Creative Industries Events and Festivals
KXB202	Project Management for Entertainment
Creative Industries Major: Fourth Unit	
Year 3, Semester 1	
IT Major Unit	
IT Major Unit	
Creative Industries Major: Fifth Unit	
A unit from the Creative Industries University Wide or Creative Industries Faculty Only Unit Options lists	
Year 3, Semester 2	
IT Major Unit	
IT Major Unit	
Creative Industries Major: Sixth Unit	
A unit from the Creative Industries University Wide or Creative Industries Faculty Only Unit Options lists	
Year 4, Semester 1	
IT Major Unit	
IT Major Unit	
Creative Industries Major: Seventh Unit	
A unit from the Creative Industries Work Integrated Learning Unit Options	
Year 4, Semester 2	
IT Major Unit	
IT Major Unit	
Creative Industries Major: Eighth Unit	
A unit from the Creative Industries Work Integrated Learning Unit Options	

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
Year 1, Semester 2	
IFB104	Building IT Systems
IFB130	Database Management
Year 2, Semester 1	
IFB103	Designing for IT
IT Core Unit Option	
Year 2, Semester 2	
CAB201	Programming Principles
CAB202	Microprocessors and Digital Systems
Year 3, Semester 1	
CAB203	Discrete Structures
CAB302	Software Development
Year 3, Semester 2	
CAB303	Networks
IFB299	IT Project Design and Development
Year 4, Semester 1	

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CAB301	Algorithms and Complexity
IFB398	Capstone Project (Phase 1)
Year 4, Semester 2	
IFB399	Capstone Project (Phase 2)
Select one of:	
CAB401	High Performance and Parallel Computing
CAB402	Programming Paradigms
CAB403	Systems Programming

Semesters

Code	Title
Year 1, Semester 1	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
Year 1, Semester 2	
IFB104	Building IT Systems
IFB130	Database Management
Year 2, Semester 1	
IFB103	Designing for IT
IT Core Unit Option	
Year 2, Semester 2	
IAB201	Modelling Information Systems
IAB202	Business of Information Technology
Year 3, Semester 1	
IAB203	Business Process Modelling
IAB204	Business Analysis
Year 3, Semester 2	
IAB205	Corporate Systems
IFB299	IT Project Design and Development
Year 4, Semester 1	
IFB398	Capstone Project (Phase 1)
Select one of:	
IAB302	Information Systems Consulting
IAB303	Business Intelligence
IAB304	Project Management
Year 4, Semester 2	
IAB301	Enterprise Architecture
IFB399	Capstone Project (Phase 2)

Note: From 2015 the Fashion Major and Second Major has been re-named Fashion Communication. If you commenced the Fashion Major or Second Major prior to 2015 you will be permitted to continue and complete the old Major or Second Major. Please refer to Fashion Communication for your list of unit options.

In this list

INSTRUCTIONS FOR MAJORS	
Code	Title
Please refer to the following study sequences to plan your program. You must complete 96 credit points (normally eight 12 credit point subjects) from the specified units to achieve a major, following semester of offer and unit requisites (where applicable) to determine order of enrolment. Any unit(s) that appear in these majors and/or minors and are also mandatory elsewhere in your course can not contribute towards the completion of these majors and/or minors. Any unit(s) that appear in multiple majors and/or minors can only contribute towards the completion of one of these majors or minors.	

Animation (KKBXMJR-ANIMATN)	
Code	Title
*Description: This major provides you with important skills in the skills, principles, concepts and history of animation. Beginning with drawing for animation and an exploration of the history of the animation industry and its practices, you will then apply this knowledge to current and emerging fields within the animation industry including motion graphics, 3D modelling and animation, real-time 3D and character animation. Through the creation of an interactive virtual environment you will be given the opportunity to refine your skills and expand your knowledge of the 3D animation industry.	
*Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this major.	
48cp from the Introductory Animation Unit Options	
KNB112	Drawing for Animation 1
KNB122	Drawing for Animation 2
KNB123	Animation and Motion Graphics
KNB124	3D Animation 1
KPB109	Film, Screen and Animation Histories
48cp from the Advanced Animation Unit Options	
KNB211	3D Animation 2
KNB212	Real-time 3D Computer Graphics
KNB221	Animation: CG Toolkit
KNB222	Virtual Environments
KNB311	Advanced Concepts in Computer Animation 1
KNB313	Contemporary Issues in the Screen Industries
*Note: KNB312 has been recoded KNB313 from 2017.	

Art and Design History (KKBXMJR-ARTHIST)	
Code	Title
*Description: This major equips you with the educational base necessary for a career in the arts professions, such as curatorial work, art criticism and arts administration. It offers a coherent and sequential set of units that provide a platform for a research-based study of the visual arts, design and architecture. In conjunction with further study, this major will assist in preparing you for work as a professional in these disciplines.	
*Assumed Knowledge: There is no	

specific prior knowledge required as a prerequisite to undertaking this major.	
96cp from the Art and Design History Unit Options	
DAB103	Architectural Visualisation 1
DAB220	Architecture, Culture and Place
DAB325	Architecture in the 20th Century
DEB202	Introducing Design History
KVB102	Modernism
KVB115	Australian Art
KVB212	Australian Art, Architecture and Design
KVB214	Post 1945 Art
KVB215	Contemporary Asian Visual Culture
KVB304	Contemporary Art Issues
KVB308	Video Art and Culture

Creative and Professional Writing (KKBXMJR-CRPRFWG)	
Code	Title
*Description: The aim of this major is to prepare students to graduate with adequate skills and knowledge in the area of creative and professional writing; to provide a thorough grounding in a variety of genres that include fiction, creative non-fiction, media writing and corporate writing and editing, thereby equipping graduates with the versatility required of professional writers; to enhance the critical, analytical and peer-reviewing skills of students; to provide an understanding of creative writing in its social and generic contexts.	
*Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this major.	
48cp from the Introductory Creative and Professional Writing Unit Options	
KPB116	Introduction to Scriptwriting
KWB104	Creative Writing: the Short Story
KWB112	Youth and Children's Writing
KWB113	Introduction to Creative Writing
KWB115	Persuasive Writing
KWB116	Creative Non-Fiction
48cp from the Advanced Creative and Professional Writing Unit Options	
KWB207	Great Books: Creative Writing Classics
KWB211	Stylistics
KWB21	Corporate Writing and Editing
3	
KWB303	Writing and Publishing Industry
KWB313	Novel and Memoir

Dance Studies (KKBXMJR-DANCEST)	
Code	Title
*Description: This major aims to provide a broad grounding in practical and theoretical aspects of dance. You will gain skills in contemporary dance, ballet, commercially driven genres, choreography and critical thinking and writing together with an understanding of the social and historical context of ballet, contemporary dance, and popular and world dance.	
*Assumed Knowledge: Previously acquired knowledge or skill IS required for you to undertake this major. For health and safety reasons, admission to this major is dependent upon an appropriate level of physical fitness to prevent injury, and having no pre-existing injuries or structural/physical issues that would prevent your safe and full participation in all physical activities within its practical units. You may be required to confirm your fitness to attempt this major. If so, you must obtain a physiotherapist's report and have it approved by the Dance Study Area Coordinator before you will be permitted to enrol in this major.	
48cp from the Introductory Dance Unit Options	
KDB105	Architecture of the Body
KDB106	Dance Analysis
KDB107	Choreographic Studies 1
KDB108	World Dance
KDB109	Funk, Tap and All That Jazz
KDB110	Deconstructing Dance in History
KDB120	Dance Practice 1
KDB121	Dance Practice 2
48cp from the Advanced Dance Unit Options	
KDB204	Australian Dance
KDB205	Teaching Dance
KDB225	Music Theatre Skills
KDB231	Latin Dance Party

Drama (KKBXMJR-DRAMA)	
Code	Title
*Description: The major offers a balance of performance theory and practice. It is designed as a learning sequence, beginning with introductory concepts and practices, through intermediate and on to advanced learning. Underpinning the major is a twin focus on contemporary performance-making and events management. Both of these areas are balanced by studies in theatre history and theory. Core topics include acting; directing; twentieth-century performance theory and practice; and events management.	
*Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this major.	
48cp from the Introductory Drama Unit Options	
KTB101	Understanding Theatre
KTB102	Process Drama
KTB104	Performance Innovation
KSB106	Acting Fundamentals
48cp from the Advanced Drama Unit Options	
KDB225	Music Theatre Skills
KTB210	Creative Industries Management
KTB211	Creative Industries Events and Festivals
KTB213	Directing Theatre
KTB215	Staging Australia
KTB302	Postdramatic Theatre
KTB305	The Entrepreneurial Artist

Entertainment Industries (KKBXMJR-ENTINDS)	
Code	Title
*Description: On completion of this major, you will be able to demonstrate the knowledge and skills required to pursue a career in the Entertainment Industry. These include an understanding of the characteristics of mainstream commercial culture that appeal to large audiences; an understanding both of business and creative processes; an ability to balance the two of these; and an awareness of historical and current Entertainment content and business.	
*Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this major.	
Either BSB126 or KPB116 from the 'Entertainment Industries Unit Options List'. BSB126 is mandatory unless you are already undertaking it as part of another study package.	
BSB126	Marketing
KPB116	Introduction to Scriptwriting
Entertainment Industries Core Units:	
AMB207	Entertainment Marketing
KXB101	Introduction to Entertainment
KXB102	Global Entertainment

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KXB201	Entertainment Practice: Balancing Creativity and Business
KXB301	Entertainment Industries Studio
LWS008	Entertainment Law
Either LWS009 or KXB202 from the 'Entertainment Industries Additional Unit Options List'. LWS009 is mandatory unless you meet the LWS008 prerequisite through another unit.	
LWS009	Introduction to Law
KXB202	Project Management for Entertainment
*Note: AMB200 or KCB301 are permitted to count towards this major if completed in 2010 or earlier. KPB101 will be permitted to count towards this study package if completed in 2011 or earlier.	

Fashion Communication (KKBXMJR-FASHION) (previously Fashion)	
Code	Title
*Description: This major has been designed to offer a mix of theoretical and practical units to reflect the professional diversity of fashion careers, where communication is fundamental to the dissemination of fashion globally. The theory units will develop your knowledge and understanding of the history, industry and consumption of fashion and how fashion is communicated, marketed and distributed through industry channels for production, and through branding, trends, styling and graphic/technical requirements. The practical units provide you with a variety of options to develop fashion communication related skills focusing on fashion graphics, product development and fashion journalism.	
*Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this major.	
*From 2015, this major's title has changed from 'Fashion Major' to 'Fashion Communication Major'.	
48cp from the Introductory Fashion Communication Unit Options	
DFB102	Introduction to Fashion
DFB203	Sustainability: The Materiality of Fashion
DFB302	Fashion Visualisation
DFB303	Unspeakable Beauty: A History of Fashion
DFB406	Product Design and Development in the Fashion Industry
48cp from the Advanced Fashion Communication Unit Options	
DFB304	Fashion and Costume in Film
DFB402	Fashion Design: 1950 to Now
DFB404	Fashion and Style Journalism
DFB502	Ragtrade: The Business of Fashion
DFB602	Critical Fashion Studies
*Note: DFB406/KFB211 are permitted to count towards the Advanced Fashion Unit Options for students who commenced this major in 2014 or earlier.	
*Note: KFB108 is permitted to count towards the Introductory Fashion Unit Options if completed in 2014 or earlier.	
*Note: KCB203, KFB106, KFB206, KFB208, KFB304 and KVB213 are permitted to count towards this major if completed in 2011 or earlier.	

Film, Television and Screen (KKBXMJR-FLMTVSC)	
Code	Title
*Description: The aim of this major is to provide students with a range of understandings in the theory and practice of film, television and screen. This study area aims to enhance creative, technical and organisational abilities as well as building story telling and communication skills.	
*Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this major.	
*Note: Students who have commenced this major in 2014 or earlier will complete the structure of 48cp of Introductory Units and 48cp of Advanced Units.	
Introductory Units in 2015: KPB101, KPB105, KPB109, KPB110, KPB112, KPB113, KPB116.	
Advanced Units in 2015: KNB312, KPB205, KPB206, KPB210.	
96cp from the Film, Television and Screen Unit Options	
KNB313	Contemporary Issues in the Screen Industries
KPB101	Introduction to Film, TV and New Media Production
KPB105	Narrative Production
KPB109	Film, Screen and Animation Histories
KPB110	The Movie, TV and New Media Business
KPB112	Film, Television and Screen Genres
KPB113	TV and Film Text Analysis
KPB116	Introduction to Scriptwriting
KPB205	Approaches to Contemporary Documentary
KPB206	Global Screen Industries
KPB210	Production Management for Film, TV and New Media
*Note: KPB202 and KPB203 are permitted to count towards this major.	
*Note: KPB212, KPB303 and KPB313 are permitted to count towards this major if completed in 2014 or earlier.	
*Note: KNB312 has been recoded KNB313 from 2017.	

Interactive and Visual Design (KKBXMJR-INVISDN)	
Code	Title
*Description: This major will provide you with the design concepts and principles, practical skills and working methods needed by a contemporary designer of visual and interactive media. You will learn how to design effectively for print and electronic media, Web and mobile media and computer games and become equipped with a versatile set of design practices to support you to enter careers in marketing, web design, electronic publishing, interaction design and the creative aspects of game design.	
*Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this major.	
It is recommended that you review the requisite requirements for units to ensure your unit selection enables you to successfully complete the requirements of this major. DXB102, DXB202 and DXB203 are highly recommended to be undertaken as first year units as they are requisites for many advanced units, but this is not compulsory.	
48cp from the Introductory Interactive and Visual Design Unit Options	
DXB102	Visual Communication
DXB201	Visual Interactions
DXB202	Image Production
DXB203	Introduction to Web Design
DXB303	Programming for Visual Designers
48cp from the Advanced Interactive and Visual Design Unit Options	
DXB301	Interface Design
DXB302	Typographic Design
DXB304	Interactive Narrative Design
DXB401	Advanced Web Design
DXB402	Theories of Visual Communication
DXB403	Design for Interactive Media
DXB501	Tangible Media

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*Note: KNB112, KIB309 and KIB315 is permitted to count towards this major if completed in 2014 or earlier.
*Note: KIB109 counts towards the Introductory Interactive and Visual Design Unit Options if completed in 2014 or earlier. KIB205 counts towards the Advanced unit options if completed in 2014 or earlier.
*Note: KIB104 is permitted to count towards this major if completed in 2011 or earlier.

Journalism (KKBXMJR-JOURNAL)	
Code	Title
*Description: This major offers you a range of options to develop an understanding of the parameters of the journalism field. The major will introduce you to a range of journalism writing styles and offers an insight into some specialist areas of reporting.	
*Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this major.	
96cp from the Journalism Unit Options	
DFB404	Fashion and Style Journalism
KJB101	Computational Journalism
KJB103	Media Design and Layout
KJB120	Newswriting
KJB121	Journalistic Inquiry
KJB222	Online Journalism 1
KJB224	Feature Writing
KJB239	Journalism Ethics and Issues
KJB280	International Journalism
KJB304	Sub-Editing

Literary Studies (KKBXMJR-LITSTD)	
Code	Title
*Description: The aims of this major are to prepare students to graduate with adequate skills and knowledge in the area of literary and cultural studies; to provide a thorough grounding in a range of texts, both literary and popular, ranging from Shakespeare to nineteenth and twentieth century literature and culture; to provide graduates with enhanced skills in critical thinking, writing and analysis; to provide graduates with an understanding of the social and historical context of literary and popular written texts; to provide some understanding of the major approaches in literary theory.	
*Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this major.	
96cp from the Literary Studies Unit Options	
KWB10	Introduction to Literary Studies
8	
KWB109	Writing Australia
KWB112	Youth and Children's Writing
KWB207	Great Books: Creative Writing Classics
KWB208	Modern Times (Literature and Culture in the 20th Century)
KWB209	Shakespeare, Then and Now
KWB210	Imagining the Americas: Contemporary American Literature and Culture
KWB308	Wonderlands: Literature and Culture in the 19th Century
KWB311	Popular Fictions, Popular Culture

Media and Communication (KKBXMJR-MEDIACM)	
Code	Title
*Description: This major offers you a range of options to develop an understanding of the parameters of the professional communication field. The major enables you to develop the skills and knowledge to prepare media material for organisations that wish to build, and maintain, a media profile.	
*Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this major.	
48cp from the Introductory Media and Communication Unit Options	
KCB101	Media and Communication Texts
KCB102	Media Mythbusting
KCB103	Strategic Speech Communication
KCB104	Media and Communication: Industries
KCB105	Inquiry in Media and Communication
48cp from the Advanced Media and Communication Unit Options	
KCB203	Consumption Matters: Consumer Cultures and Identity
KCB205	Professional Communication
KCB206	Social Media, Self and Society
KCB301	Media Audiences
*Note: KCB207 is permitted to count towards the Advanced Media and Communication Unit Options if completed in 2012 or earlier.	

Music (KKBXMJR-MUSIC)	
Code	Title
*Description: This major aims to impart a broad understanding of music practice in contemporary social, cultural and economic contexts. It aims to provide students with a combination of practical and theoretical skills to support a career in music within administrative, business, or organisational areas.	
*Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this major.	
It is recommended that you review the requisite requirements for units to ensure your unit selection enables you to successfully complete the requirements of this major.	
48cp from the Introductory Music Unit Options	
KMB003	Sex Drugs Rock 'N' Roll
KMB004	World Music
KMB107	Sound, Image, Text
KMB119	Music and Sound Production 1
KMB122	Music and Sound Concepts 1
KMB129	Music and Sound Production 2
KMB132	Music and Sound Concepts 2
48cp from the Advanced Music Unit Options	
KDB225	Music Theatre Skills
KMB200	Music Scenes and Subcultures
KMB215	The Music Industry
KMB216	Audio / Visual Interaction
KMB252	Multi-Platform Sound Design
Please note: KKB345 is permitted to count towards this major if completed in 2010 or earlier.	

Bachelor of Information Technology/Bachelor of Mathematics

Handbook

Year	2017
QUT code	IX57
CRICOS	059226F
Duration (full-time)	4 years
OP	7
Rank	87
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	384
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Mr Mike Roggenkamp (Information Technology), Associate Professor Tim Moroney (Mathematics); ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement English (4,SA) and Maths B (4,SA).

International Subject prerequisites

- Maths B
- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies (English (4,SA) and Maths B (4,SA)).

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Update

As of 2014, this course will only be available for IX57 continuing students. New students should refer to SE30 Bachelor of Information Technology/Bachelor of Mathematics.

Professional Recognition

Graduates will be eligible for membership of the Mathematical Society of Australia, the Statistical Society of Australia and, depending on unit selection, the Australian Society for Operations Research. This course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

Financial Support

You should consider applying for an industry-sponsored mathematics bursary or an information technology scholarship to help you financially throughout your studies. For further information visit Scholarships.

Study Areas

IX57 will not have nominated majors and minors and consequently there will not be a Study Area A shown on a graduate's parchment. Instead, IX57 will have specialisations. The specialisation areas that will be available for students will include:

- Business Process Management
- Data Warehousing
- Digital Environments
- Enterprise Systems
- Information Management
- Network Systems
- Software Engineering
- Web Technologies

Cooperative Education

The Faculty's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your degree. Companies that QUT's Coop Ed students have worked with include Energex, Boeing, CITEC, CSC Mining, Environmental Protection Agency, Dialog, UNiTAB, RACQ and many Queensland Government departments. The Coop Ed Program is available to Australian citizens and permanent residents only.

Find out more about the Cooperative Education Program.

Pathways to Further Studies

In 2001, an accelerated Honours program was introduced to increase the number of Bachelor of Information Technology students continuing their studies to complete the Honours year. The program allowed selected high achieving students the opportunity to undertake one postgraduate unit in the final semester of their a BIT degree (or double degree) which would be counted both for completion of the degree and towards the Honours program. The program also provided students with the opportunity to commence their Honours studies over the Summer Semester.

An alternative to the Honours program is the Master of Information Technology (Research). Students who complete a BIT degree (or double degree) with a grade point average equal to, or greater than 5 (7 point scale) and who have decided against enrolling in an Honours program, could undertake this course. In addition, students may wish to enrol in the re-designed postgraduate coursework

Masters which has ten specialisations allowing students to either extend their area of interest or specialise in other areas at the Masters level.

Domestic Course structure

Study areas

You can choose to specialise in:

- Business Process Management
- Data Warehousing
- Digital Societies
- Enterprise Systems
- Information Management
- Network Systems
- Software Engineering
- Web Technologies.

International Course structure

Study areas

You can choose to specialise in:

- Business Process Management
- Data Warehousing
- Digital Societies
- Enterprise Systems
- Information Management
- Network Systems
- Software Engineering
- Web Technologies.

Bachelor of Business/Bachelor of Information Technology

Handbook

Year	2017
QUT code	IX58
CRICOS	059595C
Duration (full-time)	4 years
OP	9
Rank	82
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	384
Credit points full-time sem.	48
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Mr Mike Roggenkamp (Information Technology); ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au; or, Director of Studies, QUT Business School; email: bus@qut.edu.au
Discipline Coordinator	Associate Prof Belinda Luke (Accountancy); Dr Louise Kelly (Advertising); Dr Radhika Lahiri (Economics); Dr Mark Doolan (Finance); Dr Ali Muhammad (Human Resource Management); Dr Shane Mathews (International Business); Dr Kavoos Mohannak (Management); Prof Larry Neale (Marketing); and Dr Anne Lane (Public Relations) Business Student Services phone 3138 2050 or email bus@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (English (4,SA) and Maths A, B or C (4,SA)).

International Subject prerequisites

- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies (English (4,SA) and Maths A, B or C (4,SA)).

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Update

This course will be offered in 2014, however the course structure is being redeveloped and is subject to university approval.
For course updates please visit www.qut.edu.au/coursechanges

Study Areas

IX58 will not have nominated majors and minors for the IT component and consequently there will not be a Study Area A shown on a graduate's parchment for the Bachelor of Information Techology. Instead, the IT component will have specialisations. The specialisation areas that will be available for students will include:

- Business Process Management
- Data Warehousing
- Digital Societies
- Enterprise Systems
- Information Management
- Network Systems
- Software Engineering
- Web Technologies

The following Majors are available from the Business component: Accounting, Advertising, Economics, Finance, Human Resource Management, International Business, Management, Marketing and Public Relations.

Pathways to Futher Studies

In 2001, an accelerated Honours program was introduced to increase the number of Bachelor of Information Technology students continuing their studies to complete the Honours year. The program allowed selected high achieving students the opportunity to undertake one postgraduate unit in the final semester of their a BIT degree (or double degree) which would be counted both for completion of the degree and towards the Honours program. The program also provided students with the opportunity to commence their Honours studies over the Summer Semester.

An alternative to the Honours program is the Master of Information Technology (Research). Students who complete a BIT degree (or double degree) with a grade point average equal to, or greater than 5 (7 point scale) and who have decided against enrolling in an Honours program, could undertake this course. In addition, students may wish to enrol in the re-designed postgraduate coursework Masters which has ten specialisations allowing students to either extend their area of interest or specialise in other areas at the Masters level.

Business: For BS63 Bachelor of Business (Honours) please click BS63 for details.

Cooperative Education

The Science and Engineering Faculty's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your degree. Companies that QUT's Coop Ed students have worked with include Energex, Boeing, CITEC, CSC Mining, Environmental Protection Agency, Dialog, UNiTAB, RACQ and many Queensland Government departments. The Coop Ed Program is available to Australian citizens and permanent residents only.

Find out more about the Cooperative Education Program.

Bachelor of Business/Bachelor of Information Technology

Important Information for Business Students

QUT Business School rules and procedures are outlined in the Business Undergraduate Guidelines booklet. Other useful information can be found on the Student Services website.

Domestic Course structure

IX58 will not have nominated majors and minors and consequently there will not be a Study Area A shown on a graduate's parchment. Instead, IX58 will have specialisations. The specialisation areas that will be available for students will include:

- Business process management
- Data warehousing
- Digital environments
- Enterprise systems
- Information management
- Network systems
- Software engineering
- Web technologies.

Business component:

- 8 Business School Core units (96 credit points)
- 8 Major Core units (96 credit points)

Major Options

- Accounting*
- Advertising
- Economics
- Finance
- Human Resource Management
- International Business
- Management
- Marketing
- Public Relations

*Accounting major students complete 6 Business Core Units and 10 Accountancy major units to allow them to complete professional requirements.

International Course structure

Pathways to Further Studies

For high-achieving double degree students who wish to take further studies may enrol in BS63 Bachelor of Business (Honours).

Study Areas

IX58 will not have nominated majors and minors and consequently there will not be a Study Area A shown on a graduate's parchment. Instead, IX58 will have specialisations. The specialisation areas that will be available for students will include:

- Business Process Management
- Data Warehousing
- Digital Societies
- Enterprise Systems
- Information Management
- Network Systems
- Software Engineering
- Web Technologies

Business component:

- 8 Business School Core units (96 credit points)
- 8 Major Core units (96 credit points)

Major Options

- Accounting*
- Advertising
- Economics
- Finance
- Human Resource Management
- International Business
- Management
- Marketing
- Public Relations

*Accounting major students complete 6 Business Core Units and 10 Accountancy major units to allow them to complete professional requirements.

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
Business Unit	
Business Unit	
Year 1, Semester 2	
IFB103	Designing for IT
IFB104	Building IT Systems
Business Unit	
Business Unit	
[Note: INB101 - INB104 have been replaced with new units IFB101-104 from Semester 1 2014 onwards]	
Year 2, Semester 1	
IT Breadth Option Unit	
IT Breadth Option Unit	
Business Unit	
Business Unit	
Year 2, Semester 2	
IT Breadth Option Unit	
IT Breadth Option Unit	
Business Unit	
Business Unit	
Year 3, Semester 1	
IFB299	IT Project Design and Development
[INB201 replaced by IFB299 in 2015.]	
INB201/IFB299 can only be taken after you have completed a minimum of 36 credit points of breadth units.	
IT Specialist Option Unit	
Business Unit	
Business Unit	
Year 3, Semester 2	
IFB398	Capstone Project (Phase 1)
CAB398 replaced INB300 in 2016. IFB398 then replaced CAB398 in 2017. If INB302 had been completed, INB300 was replaced with an option line.	
INB300/CAB398/IFB398 and INB301 can only be taken after you have completed a minimum of 192 credit points of study.	
IT Specialist Option Unit	
Business Unit	
Business Unit	
Year 4, Semester 1	
IAB202	Business of Information Technology
[INB301 replaced by IAB202 in 2016]	
INB300/CAB398/IFB398 and INB301/IAB202 can only be taken after a student has completed a minimum of 168 credit points of study.	
IT Specialist Option Unit	
Business Unit	
Business Unit	
Year 4, Semester 2	
IFB399	Capstone Project (Phase 2)
If INB300 was replaced by CAB398/IFB398 on study plan in 2016, then INB302 was also replaced by CAB399/IFB399. Otherwise INB302 replaced with an option line in 2017.	
IT Specialist Option Unit	
Business Unit	
Business Unit	

Bachelor of Business/Bachelor of Engineering (Honours)

Handbook

Year	2017
QUT code	IX59
CRICOS	084925D
Duration (full-time)	5 years
OP	8
Rank	84
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9800 per year full-time (96 credit points)
International fee (indicative)	2017: $30200 per year full-time (96 credit points)
Total credit points	480
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Director of Studies, QUT Business School; email: bus@qut.edu.au; or, SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended Study: Chemistry, Maths C, Physics

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended Study: Chemistry, Maths C, Physics

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Domestic Course structure

To graduate with a Bachelor of Engineering (Honours) in IX59, students are required to complete 288 credit points of course units, as outlined below:

- First year: Four (4) core units 48cp + two (2) discipline foundation units 24cp + two (2) option units 24cp (96 credit points)
- Major: One (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points)

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp

To complete the Bachelor of Business students will complete 192 credit points of course units, as outlined below:

- eight Business School core units (96 credit points) *
- eight major core units (96 credit points)

*Accounting major students complete six business core units and 10 accountancy major units to allow them to complete professional requirements.

International Course structure

To graduate with a Bachelor of Engineering (Honours) in IX59, students are required to complete 288 credit points of course units, as outlined below:

- First year: Four (4) core units 48cp + two (2) discipline foundation units 24cp + two (2) option units 24cp (96 credit points)
- Major: One (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points)

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp

To complete the Bachelor of Business students will complete 192 credit points of course units, as outlined below:

- eight Business School core units (96 credit points) *
- eight major core units (96 credit points)

*Accounting major students complete six business core units and 10 accountancy major units to allow them to complete professional requirements.

Sample Structure

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4, Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering

Bachelor of Business/Bachelor of Engineering (Honours)

	Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
Foundation Unit Option	
EGB123	Civil Engineering Systems
Year 3 - Semester 1	
EGB270	Civil Engineering Materials
EGB272	Traffic and Transport Engineering
Year 3 - Semester 2	
EGB273	Principles of Construction
EGB373	Geotechnical Engineering
Year 4, Semester 1	
EGB275	Structural Mechanics
EGB371	Engineering Hydraulics
Year 4 - Semester 2	
EGB376	Steel Design
EGH471	Advanced Water Engineering
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
EGB375	Design of Concrete Structures
EGH473	Advanced Geotechnical Engineering
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH472	Advanced Highway and Pavement Engineering
EGH475	Advanced Concrete Structures
EGH479	Advances in Civil Engineering Practice

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Intermediate Software Option Unit
- Advanced Electrical Option Unit

- Advanced Software Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB242	Signal Analysis
CAB202	Microprocessors and Digital Systems
Year 3 - Semester 2	
CAB201	Programming Principles
Computer Science students must take CAB201 in your Computer and Software Systems major. Please contact Science and Engineering Faculty to have 12 credit points added to your Computer Science Unit Options List.	
Intermediate Electrical Option Unit	
Year 4 - Semester 1	
EGB240	Electronic Design
Intermediate Software Option Unit	
For students with Computer Science Major: CAB301 and CAB302 are core to the Computer Science Major. Please contact Science and Engineering Faculty to be provided a list of additional units you can select from.	
Year 4 - Semester 2	
CAB403	Systems Programming
Intermediate Electrical or Software Option Unit	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
Advanced Electrical or Software Option Unit	
EGH400-1	Research Project 1
EGH456	Embedded Systems
Year 5 - Semester 2	
EGH400-2	Research Project 2
Advanced Software Option Unit	
Advanced Electrical Option Unit	
EGH455	Advanced Systems Design
Intermediate Electrical Option Unit	
EGB348	Electronics
EGB345	Control and Dynamic Systems
EGB342	Telecommunications and Signal Processing
Intermediate Software Option Unit	
CAB302	Software Development
CAB301	Algorithms and Complexity
Advanced Electrical Option Unit	
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics
Advanced Software Option Unit	
CAB432	Cloud Computing
CAB401	High Performance and Parallel Computing

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Advanced Electrical Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of

Bachelor of Business/Bachelor of Engineering (Honours)

	Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
CAB202	Microprocessors and Digital Systems
Year 3 - Semester 1	
EGB240	Electronic Design
EGB241	Electromagnetics and Machines
Year 3 - Semester 2	
EGB242	Signal Analysis
Intermediate Electrical Option Unit (1)	
Year 4 - Semester 1	
EGB340	Design and Practice
Foundation Unit Option	
Year 4 - Semester 2	
Intermediate Electrical Option Unit (2)	
Intermediate Electrical Option Unit (3)	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
Advanced Electrical Option Unit (1)	
Advanced Electrical Option Unit (2)	
Year 5 - Semester 2	
EGH400-2	Research Project 2
Advanced Electrical Option Unit (3)	
Advanced Electrical Option Unit (4)	
Advanced Electrical Option Unit (5)	
Intermediate Electrical Option Unit	
EGB341	Energy Supply and Delivery
EGB342	Telecommunications and Signal Processing
EGB345	Control and Dynamic Systems
EGB348	Electronics
Advanced Electrical Option Unit	
EGH440	Power Systems Analysis
EGH441	Power System Modelling
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Advanced Electrical Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
CAB202	Microprocessors and Digital Systems
EGB241	Electromagnetics and Machines
Year 3 - Semester 2	
EGB242	Signal Analysis
Intermediate Electrical Option Unit (1)	
Year 4 - Semester 1	
EGB340	Design and Practice
EGB240	Electronic Design
Year 4 - Semester 2	
Intermediate Electrical Option Unit (2)	
Intermediate Electrical Option Unit (3)	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
Advanced Electrical Option Unit (1)	
Advanced Electrical Option Unit (2)	
Year 5 - Semester 2	
EGH400-2	Research Project 2
Advanced Electrical Option Unit (3)	
Advanced Electrical Option Unit (4)	
Advanced Electrical Option Unit (5)	
Intermediate Electrical Option Unit	
EGB341	Energy Supply and Delivery
EGB342	Telecommunications and Signal Processing
EGB345	Control and Dynamic Systems
EGB348	Electronics
Advanced Electrical Option Unit	
EGH440	Power Systems Analysis
EGH441	Power System Modelling
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical and Aerospace Option Units
- Advanced Electrical and Aerospace Option Units

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics

Bachelor of Business/Bachelor of Engineering (Honours)

EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
CAB202	Microprocessors and Digital Systems
EGB240	Electronic Design
Year 3 - Semester 2	
EGB242	Signal Analysis
Intermediate Electrical Option Unit	
Year 4 - Semester 1	
EGB349	Systems Engineering and Design Project
EGB243	Aircraft Systems and Flight
Year 4 - Semester 2	
EGB346	Unmanned Aircraft Systems
EGB345	Control and Dynamic Systems
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH446	Autonomous Systems
EGH400-1	Research Project 1
Advanced Electrical Option Unit	
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH445	Modern Control
EGH450	Advanced Unmanned Aircraft Systems
Advanced Electrical Option Unit	
Intermediate Electrical and Aerospace Option Units	
CAB403	Systems Programming
EGB342	Telecommunications and Signal Processing
EGB348	Electronics
Advanced Electrical and Aerospace Option Units	
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH448	Power Electronics
EGH449	Advanced Electronics
EGH455	Advanced Systems Design
EGH456	Embedded Systems

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB210	Fundamentals of Mechanical Design
EGB214	Materials and Manufacturing
Year 3 - Semester 2	
EGB211	Dynamics
EGB314	Strength of Materials
Year 4 - Semester 1	
EGB321	Dynamics of Machines
EGB323	Fluid Mechanics
Year 4 - Semester 2	
EGB322	Thermodynamics
EGH404	Research in Engineering Practice
Year 5 - Semester 1	
EGB316	Design of Machine Elements
EGH400-1	Research Project 1
EGH414	Stress Analysis
EGH421	Vibration and Control
Year 5 - Semester 2	
EGH400-2	Research Project 2

EGH420	Mechanical Systems Design
EGH422	Advanced Thermodynamics
EGH423	Fluids Dynamics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Intermediate Mechanical Option Unit
- Advanced Electrical Option Unit
- Advanced Mechanical Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB242	Signal Analysis
EGB211	Dynamics
Year 3 - Semester 2	
EGB345	Control and Dynamic Systems
CAB202	Microprocessors and Digital Systems
Year 4 - Semester 1	
EGB220	Mechatronics Design 1
EGB321	Dynamics of Machines
Year 4 - Semester 2	
EGB320	Mechatronics Design 2

Bachelor of Business/Bachelor of Engineering (Honours)

Intermediate Electrical Option Unit	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
EGH419	Mechatronics Design 3
EGH446	Autonomous Systems
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH445	Modern Control
EGH413	Advanced Dynamics
Advanced Electrical Option Unit	
Intermediate Electrical Option Unit	
CAB403	Systems Programming
EGB348	Electronics
Intermediate Mechanical Option Unit	
EGB321	Dynamics of Machines
EGB323	Fluid Mechanics
Advanced Electrical Option Unit	
EGH456	Embedded Systems
EGH455	Advanced Systems Design
EGH448	Power Electronics
EGH449	Advanced Electronics
Advanced Mechanical Option Unit	
EGH413	Advanced Dynamics
EGH423	Fluids Dynamics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB210	Fundamentals of Mechanical Design
LSB131	Anatomy
Year 3 - Semester 2	
EGB211	Dynamics
LSB231	Physiology
Year 4 - Semester 1	
EGB214	Materials and Manufacturing
EGB323	Fluid Mechanics
Year 4 - Semester 2	
EGB314	Strength of Materials
EGH404	Research in Engineering Practice
Year 5 - Semester 1	
EGB319	BioDesign
EGH400-1	Research Project 1
EGH414	Stress Analysis
EGH418	Biomechanics
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH424	Biofluids
EGH435	Modelling and Simulation for Medical Engineers
EGH438	Biomaterials

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
CVB220	Process Principles
EGB363	Safety and Environmental Management
Year 3 - Semester 2	
CVB101	General Chemistry
EGB322	Thermodynamics
Year 4 - Semester 1	
EGB260	Operations Management and Process Economics
EGB323	Fluid Mechanics
Year 4 - Semester 2	
EGH404	Research in Engineering Practice
EGH423	Fluids Dynamics
Year 5 - Semester 1	
EGB361	Minerals and Minerals Processing
EGH400-1	Research Project 1
Plant and Process Design	
Unit Operation	
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH411	Industrial Chemistry
EGH422	Advanced Thermodynamics
EGH460	Advanced Process Modelling

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
BSB110	Accounting
BSB115	Management
Year 1 Semester 2	
BSB111	Business Law and

Bachelor of Business/Bachelor of Engineering (Honours)

	Ethics
BSB124	Working in Business
Year 2 Semester 1	
AYB200	Financial Accounting
AYB225	Management Accounting
Year 2 Semester 2	
AYB221	Accounting Systems and Technologies
BSB113	Economics
Year 3 Semester 1	
EFB210	Finance 1
BSB126	Marketing
Year 3 Semester 2	
AYB321	Strategic Management Accounting
AYB340	Company Accounting
Year 4 Semester 1	
AYB219	Taxation Law
AYB230	Corporations Law
Year 4 Semester 2	
AYB301	Audit and Assurance
AYB311	Financial Accounting Issues

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
BSB113	Economics
BSB126	Marketing
Year 1 Semester 2	
BSB110	Accounting
BSB115	Management
Year 2 Semester 1	
AMB220	Advertising Theory and Practice
BSB124	Working in Business
Year 2 Semester 2	
AMB200	Consumer Behaviour
AMB201	Marketing and Audience Research
Year 3 Semester 1	
BSB111	Business Law and Ethics
BSB119	Global Business
Year 3 Semester 2	
AMB318	Advertising Copywriting
AMB319	Media Planning
Year 4 Semester 1	
AMB320	Advertising Management
AMB330	Digital Portfolio
Year 4 Semester 2	
AMB339	Advertising Campaigns
MGB227	Entrepreneurship

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2
- Applied Economics Unit Options
- Quantitative Economics Unit Options

Code	Title
Year 1 Semester 1	
BSB113	Economics
BSB115	Management
Year 1 Semester 2	
BSB110	Accounting
EFB223	Economics 2
Year 2 Semester 1	
EFB330	Intermediate Macroeconomics
EFB331	Intermediate Microeconomics
Year 2 Semester 2	
BSB111	Business Law and Ethics
Choose an elective from the Applied Economics or Quantitative Economics Unit Option lists	
Year 3 Semester 1	
MGB227	Entrepreneurship
Choose an elective from the Applied Economics or Quantitative Economics Unit Option lists	
Year 3 Semester 2	
BSB119	Global Business
Choose an elective from the Applied Economics or Quantitative Economics Unit Option lists	
Year 4 Semester 1	
BSB124	Working in Business
Choose an elective from the Applied Economics or Quantitative Economics Unit Option lists	
Year 4 Semester 2	

EFB338	Contemporary Application of Economic Theory
BSB126	Marketing
Applied Economics Unit Options	
EFB201	Financial Markets
EFB225	Economics for the Real World
EFB226	Environmental Economics and Policy
EFB336	International Economics
Quantitative Economics Unit Options	
EFB222	Introduction to Applied Econometrics
EFB332	Applied Behavioural Economics
EFB333	Applied Econometrics
EFB337	Game Theory and Applications

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
BSB113	Economics
BSB115	Management
Year 1 Semester 2	
BSB124	Working in Business
BSB126	Marketing
Year 2 Semester 1	
BSB110	Accounting
MGB227	Entrepreneurship
Year 2 Semester 2	
EFB201	Financial Markets
EFB210	Finance 1
Year 3 Semester 1	
BSB111	Business Law and Ethics
EFB335	Investments
Year 3 Semester 2	
EFB343	Corporate Finance
EFB344	Risk Management and Derivatives
Year 4 Semester 1	
EFB223	Economics 2
EFB312	International Finance
Year 4 Semester 2	

Bachelor of Business/Bachelor of Engineering (Honours)

BSB119	Global Business
EFB360	Finance Capstone

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
BSB113	Economics
BSB115	Management
Year 1 Semester 2	
BSB111	Business Law and Ethics
BSB124	Working in Business
Year 2 Semester 1	
MGB227	Entrepreneurship
MGB200	Managing People
Year 2 Semester 2	
MGB207	Human Resource Issues and Strategy
BSB110	Accounting
Year 3 Semester 1	
MGB220	Human Resource Decision Making
MGB331	Learning and Development in Organisations
Year 3 Semester 2	
MGB201	Contemporary Employment Relations
BSB126	Marketing
Year 4 Semester 1	
BSB119	Global Business
MGB339	Performance and Reward
Year 4 Semester 2	
MGB320	Recruitment and Selection
MGB370	Personal and Professional Development

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
BSB119	Global Business
BSB126	Marketing
Year 1 Semester 2	
BSB110	Accounting
BSB115	Management
Year 2 Semester 1	
BSB113	Economics
MGB227	Entrepreneurship
Year 2 Semester 2	
AMB210	Importing and Exporting
EFB240	Finance for International Business
Year 3 Semester 1	
BSB111	Business Law and Ethics
BSB124	Working in Business
Year 3 Semester 2	
AMB303	International Logistics
MGB225	Intercultural Communication and Negotiation Skills
Year 4 Semester 1	
AMB336	International Marketing
AYB227	International Accounting
Year 4 Semester 2	
AMB369	International Business Strategy
MGB340	International Business in the Asia-Pacific

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
BSB113	Economics
BSB115	Management
Year 1 Semester 2	
BSB111	Business Law and Ethics
BSB126	Marketing
Year 2 Semester 1	
BSB110	Accounting
BSB119	Global Business
Year 2 Semester 2	
MGB200	Managing People
MGB227	Entrepreneurship

Year 3 Semester 1	
MGB226	Innovation, Knowledge and Creativity
If you are completing the Management stream:	
MGB210	Managing Operations
If you are completing the Entrepreneurship stream:	
MGB201	Contemporary Employment Relations
MGB210	Managing Operations
Year 3 Semester 2	
MGB225	Intercultural Communication and Negotiation Skills
MGB335	Managing Projects
MGB324	Managing Business Growth
Year 4 Semester 1	
BSB124	Working in Business
MGB341	Managing Risk
Year 4 Semester 2	
MGB309	Managing Strategically
MGB310	Managing Sustainable Change
MGB338	Workplace Learning

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
BSB113	Economics
BSB126	Marketing
Year 1 Semester 2	
BSB111	Business Law and Ethics
BSB115	Management
Year 2 Semester 1	
BSB124	Working in Business
BSB110	Accounting
Year 2 Semester 2	
AMB201	Marketing and Audience Research
AMB240	Marketing Planning and Management
Year 3 Semester 1	
AMB200	Consumer Behaviour
BSB119	Global Business
Year 3 Semester 2	

AMB202	Integrated Marketing Communication
AMB330	Digital Portfolio
Year 4 Semester 1	
AMB340	Services Marketing
MGB227	Entrepreneurship
Year 4 Semester 2	
AMB336	International Marketing
AMB359	Strategic Marketing

Semesters

Code	Title
Year 1 Semester 1	
BSB119	Global Business
BSB126	Marketing
Year 1 Semester 2	
BSB110	Accounting
BSB115	Management
Year 2 Semester 1	
AMB201	Marketing and Audience Research
BSB113	Economics
Year 2 Semester 2	
AMB263	Introduction to Public Relations
AMB264	Public Relations Techniques
Year 3 Semester 1	
AMB373	Issues, Stakeholders and Reputation
BSB124	Working in Business
Year 3 Semester 2	
AMB372	Public Relations Planning
MGB227	Entrepreneurship
Year 4 Semester 1	
AMB374	Global Public Relations Cases
BSB111	Business Law and Ethics
Year 4 Semester 2	
AMB375	Public Relations Management
AMB379	Public Relations Campaigns

Bachelor of Business/Bachelor of Corporate Systems Management

Handbook

Year	2017
QUT code	IX62
CRICOS	063022F
Duration (full-time)	4 years
OP	9
Rank	82
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	384
Credit points full-time sem.	48
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Taizan Chan (Corporate Systems Management); ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au; or, Director of Studies, QUT Business School; email: bus@qut.edu.au
Discipline Coordinator	Associate Prof Belinda Luke (Accountancy); Dr Louise Kelly (Advertising); Dr Radhika Lahiri (Economics); Dr Mark Doolan (Finance); Dr Ali Muhammad (Human Resource Management); Dr Shane Mathews (International Business); Dr Kavoos Mohannak (Management); Prof Larry Neale (Marketing); and Dr Anne Lane (Public Relations) Business Student Services - (07) 3138 2050 Business Student Services phone 3138 2050 or email bus@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (English (4, SA) and Math A, B or C (4, SA)).

International Subject prerequisites

- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies (English (4, SA) and Math A, B or C (4, SA)).

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Update

This course is currently under review. The course structure is being redeveloped and is subject to university approval.
For course updates please visit www.qut.edu.au/coursechanges

Professional Recognition

Corporate Systems Management component: The course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

Business component: Students may be eligible for membership to a number of professional bodies depending on choice of major and unit selection. Details on professional recognition can be found under the individual majors of the Bachelor of Business (BS05).

Course Design

Students are required to complete 384 credit points (32 units) comprised of 192 credit points (16 units) from the Bachelor of Business program and 192 credit points (16 units) from the Bachelor of Corporate Systems Management program which includes an industry based project and an IT options (elective) unit.

Business students complete 8 Business School Core Units together with 8 Major Core Units from their chosen discipline. (Accountancy students undertake 6 Business School Core Units and 10 Major Core Units to meet professional recognition requirements).

Note the following:

Cooperative Education Program

The Science and Engineering Faculty's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your degree. Companies that QUT's Coop Ed students have worked with include Energex, Boeing, CITEC, CSC Mining, Environmental Protection Agency, Dialog, UNiTAB, RACQ and many Queensland Government departments. The Coop Ed Program is available to Australian citizens and permanent residents only.

Find out more about the Cooperative Education Program.

Important Information for Business Students

QUT Business School rules and procedures are outlined in the Business Undergraduate Guidelines booklet.
Other useful information can be found on the Student Services website.

Domestic Course structure

Course Design

Students are required to complete 384 credit points (32 units) comprised of 192 credit points (16 units) from the Bachelor of Business program and 192 credit points (16 units) from the Bachelor of Corporate Systems Management program which includes an industry based project and an IT options (elective) unit.

Business students complete eight Business School Core Units together with eight Major Core Units from their chosen discipline. (Accountancy students

undertake 6 Business School Core Units and 10 Major Core Units to meet professional recognition requirements).

Note the following:

- The units BSB115 Management and BSB126 Marketing are part of the Business component of the IX62.
- The unit MGB223 Entrepreneurship and Innovation is part of the Corporate Systems Management component of the IX62.

International Course structure

Course Design

Students are required to complete 384 credit points (32 units) comprised of 192 credit points (16 units) from the Bachelor of Business program and 192 credit points (16 units) from the Bachelor of Corporate Systems Management program which includes an industry based project and an IT options (elective) unit.

Business students complete eight Business School Core Units together with eight Major Core Units from their chosen discipline. (Accountancy students undertake 6 Business School Core Units and 10 Major Core Units to meet professional recognition requirements).

Note the following:

- The units BSB115 Management and BSB126 Marketing are part of the Business component of the IX62.
- The unit MGB223 Entrepreneurship and Innovation is part of the Corporate Systems Management component of the IX62.

Bachelor of Business/Bachelor of Games and Interactive Entertainment

Handbook

Year	2017
QUT code	IX63
CRICOS	063024D
Duration (full-time)	4 years
OP	8
Rank	84
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9,700 per year full-time (96 credit points)
International fee (indicative)	2017: $27,900 per year full-time (96 credit points)
Total credit points	384
Credit points full-time sem.	48
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Mike Roggenkamp (Games and Interactive Entertainment); ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au; or, Director of Studies, QUT Business School; email: bus@qut.edu.au
Discipline Coordinator	Associate Prof Belinda Luke (Accountancy); Dr Louise Kelly (Advertising); Dr Radhika Lahiri (Economics); Dr Mark Doolan (Finance); Dr Ali Muhammad (Human Resource Management); Dr Shane Mathews (International Business); Dr Kavoos Mohannak (Management); Prof Larry Neale (Marketing); and Dr Anne Lane (Public Relations) Business: Student Services: (07) 3138 2050 Business: Student Services: bus@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths A, B or C
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

International Subject prerequisites

- Maths A, B or C

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Update

This course will be offered in 2014, however the course structure is being redeveloped and is subject to university approval.
For course updates please visit www.qut.edu.au/coursechanges

Course Design

Students will be required to complete 192 credit points from the Bachelor of Games and Interactive Entertainment; and 192 credit points from the Bachelor of Business course.

Business Component: Students must complete the Business School Core Units (96 credit points) together with a 96 credit point major.

Students will undertake the two components of the double degree concurrently.

Cooperative Education Program

The Science and Engineering Faculty's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your degree. Companies that QUT's Coop Ed students have worked with include Energex, Boeing, CITEC, CSC Mining, Environmental Protection Agency, Dialog, UNiTAB, RACQ and many Queensland Government departments. The Coop Ed Program is available to Australian citizens and permanent residents only.

Find out more about the Cooperative Education Program.

Important Information for Business Students

QUT Business School rules and procedures are outlined in the Business Undergraduate Guidelines booklet. Other useful information can be found on the Student Services website.

Unit Incompatibility/Translation Information

Details on the translation and incompatibility of old and new units is located here:
Undergraduate Translation Table
If you have completed the unit(s) listed under the "Translation Unit Codes" column you are not permitted to enrol in the listed new code.

Domestic Course structure

Students will be required to complete 192 credit points from the Bachelor of Games and Interactive Entertainment; and 192 credit points from the Bachelor of Business course.

Students must complete the 96 credit point Business School core units (eight units) in the business program together with a 96 credit point major (eight units)*.

Students will undertake the two components of the double degree concurrently.

*Accounting major students complete 6 business core units and 10 accountancy major units to allow them to complete professional requirements.

International Course structure

Course Design

Students will be required to complete 192 credit points from the Bachelor of Games and Interactive Entertainment; and 192 credit points from the Bachelor of Business course.

Business Component: Students must complete the 96 credit point Business School Core Units in the Business program together with a 96 credit point minor*.

Students will undertake the two components of the double degree concurrently.

*Accounting major students complete 6 Business Core Units and 10 Accountancy major units to allow them to complete professional requirements.

Bachelor of Games and Interactive Entertainment/Bachelor of Mathematics

Handbook

Year	2017
QUT code	IX64
CRICOS	063031E
Duration (full-time)	4 years
OP	6
Rank	89
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9,100 per year full-time (96 credit points)
International fee (indicative)	2017: $28,100 per year full-time (96 credit points)
Total credit points	384
Credit points full-time sem.	48
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Mike Roggenkamp (Games and Interactive Entertainment); Associate Professor Tim Moroney (Mathematics); ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement English (4,SA) and Maths B (4,SA).

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies (English (4,SA) and Maths B (4,SA)).

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Overview

In this double degree you will complete the requirements for two separate degrees in four years. The course consists of units in both games and interactive entertainment and mathematics. In the games and interactive entertainment component you will complete core units in introductory design, games studies, professional skills and basic programming and then choose a major from animation and computational arts; digital media; game design; and software technologies. In final year, you will participate in a major group project to produce a significant piece of work using PC, mobile devices, consoles or virtual reality.

In mathematics, you will complete core units that provide a foundation for both study and future work in mathematics and games and interactive entertainment, and then select units from the majors (for students commencing IX64 in 2014) decision science, applied and computational mathematics or statistical science. You are assisted throughout your course with choices to match your career aspirations and abilities. All these strands involve project work and real-world applications.

Career Outcomes

A graduate may find work in film and television special effects or in the games and interactive entertainment environments making games look more realistic (such as concept artist).

Mathematics graduates are also employed across a wide range of areas. These include, but are not limited to, finance, investment, data analytics, defence and national security, research, information technology, environmental science, health, management, marketing, logistics, media, and education. In addition to their knowledge and skills in mathematics, graduates are also highly valued for their analytical and problem-solving skills. Development of skills in communication, problem-solving, critical thinking and teamwork form an integral part of the course.

Professional Recognition

The software technologies major is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord. On graduation students may also be eligible for membership in the Australian Mathematical Society (AMS), ANZIAM (Australia and New Zealand Industrial and Applied Mathematics, a division of AMS), the Australian Society for Operations Research Inc. (ASOR) and the Statistical Society of Australia.

Cooperative Education Program

The Faculty's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your degree. Companies that QUT's Coop Ed students have worked with include Energex, Boeing, CITEC, CSC Mining, Environmental Protection Agency, Dialog, UNiTAB, RACQ and many Queensland Government departments. The Coop Ed Program is available to Australian citizens and permanent residents only.

Find out more about the Cooperative Education Program.

Bachelor of Games and Interactive Entertainment/Bachelor of Mathematics

Financial Support

You should consider applying for an industry-sponsored mathematics bursary to help you financially throughout your studies. For further information visit Scholarships.

Domestic Course structure

Students are required to complete 384 credit points comprised of 192 credit points from the Bachelor of Games and Interactive Entertainment program and 192 credit points from the Bachelor of Mathematics program.

Games and Interactive Entertainment component:

- 8 games and interactive entertainment core units (96 credit points)
- 8 major core units (96 credit points)

Mathematics component:

- 6 core units (72 credit points), which are further divided into 4 mathematics core units (48 credit points), and 2 core option units (24 credit points) selected from an approved list
- 10 major core units (120 credit points)

Mathematics core units

These units give you the grounding in mathematical theory and practice upon which your major units will build, and also provide an introductory taste of each of the three majors: applied and computational mathematics; decision science; and statistical science.

Core option units

You may choose from a wide variety of introductory units from other disciplines offered at QUT, or you may choose additional mathematics units. The additional mathematics units include a unit specially designed to assist students without a background of successful study in Mathematics C at high school; an alternative unit aimed at high achieving students that explores some interesting and unusual aspects of mathematics in some detail; and a unit introducing the field of computational and simulation science which combines mathematics, science and computing to simulate real-world problems.

International Course structure

Students are required to complete 384 credit points comprised of 192 credit points from the Bachelor of Games and Interactive Entertainment program and 192 credit points from the Bachelor of Mathematics program.

Games and Interactive Entertainment component:

- 8 Games and Interactive Entertainment Core units (96 credit points)
- 8 Major Core units (96 credit points)

Mathematics component:

- 6 Core units (72 credit points), which are further divided into 4 Mathematics Core units (48 credit points), and 2 Core Option units (24 credit points) selected from an approved list.
- 10 Major Core units (120 credit points)

Mathematics Core Units

These units give you the grounding in mathematical theory and practice upon which your major units will build, and also provide an introductory taste of each of the three majors: applied and computational mathematics; decision science; and statistical science.

Core Option Units

You may choose from a wide variety of introductory units from other disciplines offered at QUT, or you may choose additional mathematics units. The additional mathematics units include a unit specially designed to assist students without a background of successful study in Mathematics C at high school; an alternative unit aimed at high achieving students that explores some interesting and unusual aspects of mathematics in some detail; and a unit introducing the field of computational and simulation science which combines mathematics, science and computing to simulate real-world problems.

Sample Structure

Semesters

Code	Title
Games and Interative Entertainment unit set:	
Year 1 Semester 1	
IFB104	Building IT Systems
IGB180	Computer Games Studies
[INB180 replaced by IGB180 in 2017]	
Year 1 Semester 2	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
Year 2 Semester 1	
IFB103	Designing for IT
Games & Interactive Entertainment Major*	
Year 2 Semester 2	
Games & Interactive Entertainment Major*	
Games & Interactive Entertainment Major*	
Year 3 Semester 1	
Games & Interactive Entertainment Major*	
Games & Interactive Entertainment Major*	
Year 3 Semester 2	
Games & Interactive Entertainment Major*	
Games & Interactive Entertainment Major*	
Year 4 Semester 1	
INB379	Game Project Design
Games & Interactive Entertainment Major*	
Year 4 Semester 2	
INB380	Games Project
NOTE:	
* Refer to "Bachelor of Games & Interactive Entertainment Majors Course structure (Block B)" under Units List for the major's unit sets.	

Semesters

Code	Title
Applied and Computational Mathematics Major unit set:	
Year 1 Semester 1	
MXB102	Abstract Mathematical Reasoning
Maths Core Options Unit**	
OR	
MXB101	Probability and Stochastic Modelling 1
OR	
MXB103	Introductory Computational Mathematics

Bachelor of Games and Interactive Entertainment/Bachelor of Mathematics

Year 1 Semester 2	
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
(PLEASE NOTE: you will need to nominate your Maths major in your Study Plan to select MXB105 and MXB106. These units are common to all three Maths majors)	
Year 2 Semester 1	
MXB101	Probability and Stochastic Modelling 1
OR Maths Core Options Unit** (select if completed MXB101 in first year)	
MXB103	Introductory Computational Mathematics
OR Maths Core Options Unit** (select if completed MXB103 in first year)	
Year 2 Semester 2	
MXB107	Introduction to Statistical Modelling
Maths Core Options Unit**	
Year 3 Semester 1	
MXB201	Advanced Linear Algebra
MXB221	Ordinary Differential Equations
Year 3 Semester 2	
MXB202	Advanced Calculus
MXB222	Computational Linear Algebra
Year 4 Semester 1	
MXB321	Applied Transport Theory
MXB322	Partial Differential Equations
Year 4 Semester 2	
MXB323	Dynamical Systems
MXB324	Computational Fluid Dynamics
NOTE:	
** Only TWO (2) Option units may be taken in these 4 unit-slots.	

Semesters

Code	Title
Decision Science Major unit set:	
Year 1 Semester 1	
MXB102	Abstract Mathematical Reasoning
Maths Core Options Unit**	
OR	
MXB101	Probability and Stochastic Modelling 1
OR	
MXB103	Introductory Computational Mathematics
Year 1 Semester 2	
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
(PLEASE NOTE: you will need to nominate your Maths major in your Study Plan to select MXB105 and MXB106. These units are common to all three Maths majors)	
Year 2 Semester 1	
MXB101	Probability and Stochastic Modelling 1
OR Maths Core Options Unit** (select if completed MXB101 in first year)	
MXB103	Introductory Computational Mathematics
OR Maths Core Options Unit** (select if completed MXB103 in first year)	
Year 2 Semester 2	
MXB107	Introduction to Statistical Modelling
Maths Core Options Unit	
Year 3 Semester 1	
MXB201	Advanced Linear Algebra
MXB232	Introduction to Operations Research
Year 3 Semester 2	
MXB202	Advanced Calculus
MXB241	Probability and Stochastic Modelling 2
OR	
CAB201	Programming Principles
Year 4 Semester 1	
MXB332	Optimisation Modelling
MXB341	Statistical Inference
OR	
MXB351	Coding Theory and Graph Theory
Year 4 Semester 2	
MXB334	Operations Research for Stochastic Processes
MXB335	Advanced Optimisation Modelling
NOTE:	
** Only TWO (2) Option units may be taken in these 4 unit-slots.	

Semesters

Code	Title
Statistical Science Major unit set:	
Year 1 Semester 1	
MXB102	Abstract Mathematical Reasoning
Maths Core Options Unit**	
OR	
MXB101	Probability and Stochastic Modelling 1
OR	
MXB103	Introductory Computational Mathematics
Year 1 Semester 2	
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
(PLEASE NOTE: you will need to nominate your Maths major in your Study Plan to select MXB105 and MXB106. These units are common to all three Maths majors)	
Year 2 Semester 1	
MXB101	Probability and Stochastic Modelling 1
OR Maths Core Options Unit** (select if completed MXB101 in first year)	
MXB103	Introductory Computational Mathematics
OR Maths Core Options Unit** (select if completed MXB103 in first year)	
Year 2 Semester 2	
MXB107	Introduction to Statistical Modelling
Maths Core Options Unit**	
Year 3 Semester 1	
MXB201	Advanced Linear Algebra
MXB242	Regression and Design
Year 3 Semester 2	
MXB202	Advanced Calculus
MXB241	Probability and Stochastic Modelling 2
Year 4 Semester 1	
MXB341	Statistical Inference
MXB342	Statistical Techniques
Year 4 Semester 2	
MXB343	Modelling Dependent Data
MXB344	Generalised Linear Models
NOTE:	
** Only TWO (2) Option units may be	

taken in these 4 unit-slots.

Bachelor of Fine Arts (Interactive and Visual Design)/Bachelor of Information Technology

Handbook

Year	2017
QUT code	IX69
CRICOS	064812A
Duration (full-time)	4 years
OP	11
Rank	76
OP Guarantee	Yes
Campus	Kelvin Grove, Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $28100 per year full-time (96 credit points)
Total credit points	384
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Program Director, School of Design (Creative Industries); Mr Mike Roggenkamp (Information Technology); ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Dr Jeremy Kerr (Interactive and Visual Design) CI: +61 7 3138 8114 ci@qut.edu.au (Interactive and Visual Design)

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA) of English and one of the following: Maths A, Maths B or Maths C.

International Subject prerequisites

- Maths A, B or C

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Professional Recognition

This course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

Career Outcomes

This double degree will set you up for a career in the rapidly expanding fields of contemporary communication and the application of new media technologies.

Course Structure

This course is made up of 384 credit points. Each component (i.e. Information Technology, and Interactive and Visual Design) comprises 192 credit points.

Study Areas

The Bachelor of Information Technology will not have nominated majors and minors and consequently there will not be a Study Area A shown on a graduate's parchment. Instead, it will have specialisations. The specialisation areas that will be available for students will include:

- Business Process Management
- Data Warehousing
- Digital Environments
- Enterprise Systems
- Information Management
- Network Systems
- Software Engineering
- Web Technologies

Pathways to Further Studies

In 2001, an accelerated Honours program was introduced to increase the number of Bachelor of Information Technology students continuing their studies to complete the Honours year. The program allowed selected high achieving students the opportunity to undertake one postgraduate unit in the final semester of their a BIT degree (or double degree) which would be counted both for completion of the degree and towards the Honours program. The program also provided students with the opportunity to commence their Honours studies over the Summer Semester.

An alternative to the Honours program is the Master of Information Technology (Research). Students who complete a BIT degree (or double degree) with a grade point average equal to, or greater than 5 (7 point scale) and who have decided against enrolling in an Honours program, could undertake this course. In addition, students may wish to enrol in the re-designed postgraduate coursework Masters which has ten specialisations allowing students to either extend their area of interest or specialise in other areas at the Masters level.

Alternatively, on successful completion of this course you will be eligible to apply for entry into the Bachelor of Fine Arts (Honours), provided you have met entry requirements.

Cooperative Education

The Faculty of Science and Engineering's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your degree. Companies that QUT's Coop Ed students have worked with include Energex, Boeing, CITEC, CSC Mining, Environmental Protection Agency, Dialog, UNiTAB, RACQ and many Queensland Government departments. The Coop Ed Program is available to Australian citizens and permanent residents only.

Bachelor of Fine Arts (Interactive and Visual Design)/Bachelor of Information Technology

Find out more about the Cooperative Education Program.

Domestic Course structure

This course is made up of 384 credit points. Each component (i.e. Information Technology, and Interactive and Visual Design) comprises 192 credit points.

Study areas

The Bachelor of Information Technology has majors in information systems and computer science. The major study area will be shown on a graduate's parchment.

Study overseas

Study overseas while gaining credit towards your QUT degree with one of our worldwide exchange partners. Overseas study can be for one or two semesters (or during the semester break) and the units you take can be in either degree area, depending on how they match with your QUT course. For more information, visit QUT student exchange.

International Course structure

Course Structure

This course is made up of 384 credit points. Each component (i.e. Information Technology, and Interactive and Visual Design) comprises 192 credit points.

Study Areas

The Bachelor of Information Technology has majors in Information Systems and Computer Sciencethe Major Study Area A will be shown on a graduate's parchment.

Study Overseas

Study overseas while gaining credit towards your QUT degree with one of our worldwide exchange partners. Overseas study can be for one or two semesters (or during the semester break) and the units you take can be in either degree area, depending on how they match with your QUT course. For more information, visit QUT student exchange.

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
DXB101	Design and Creative Thinking
DXB102	Visual Communication
Year 1, Semester 2	
IFB130	Database Management
IFB104	Building IT Systems
DXB201	Visual Interactions
DXB203	Introduction to Web Design
Note: Students considering studying overseas in Year 2 Semester 2 must apply by 1 November.	
Year 2, Semester 1	
IFB103	Designing for IT
IT Core Unit Option	
DXB403	Design for Interactive Media
KNB112	Drawing for Animation 1
Year 2, Semester 2	
IT Major Unit	
IT Major Unit	
DXB202	Image Production
KNB123	Animation and Motion Graphics
Year 3, Semester 1	
IT Major Unit	
IT Major Unit	
DXB301	Interface Design
DXB302	Typographic Design
Year 3, Semester 2	
IT Major Unit	
IT Major Unit	
DXB401	Advanced Web Design
DXB402	Theories of Visual Communication
Year 4, Semester 1	
IT Major Unit	
IT Major Unit	
DXH702	Contemporary Issues in IVD
SEMESTER 1 UNIT OPTIONS	
One unit from the Semester 1 Unit Options (DXB501 or DXB502):	
DXB501	Tangible Media
DXB502	Visual Information Design
Year 4, Semester 2	
IT Major Unit	
IT Major Unit	
DXH803	Professional Practice for Designers
SEMESTER 2 UNIT OPTIONS	
One unit from the Semester 2 Unit Options (DXH601 or DXH602):	
DXH601	Integrated Experience Design
DXH602	Embodied Interactions

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
Year 1, Semester 2	
IFB104	Building IT Systems
IFB130	Database Management
Year 2, Semester 1	
IFB103	Designing for IT
IT Core Unit Option	
Year 2, Semester 2	
CAB201	Programming Principles
CAB202	Microprocessors and Digital Systems
Year 3, Semester 1	
CAB203	Discrete Structures
CAB302	Software Development
Year 3, Semester 2	
CAB303	Networks
IFB299	IT Project Design and Development
Year 4, Semester 1	
CAB301	Algorithms and Complexity
IFB398	Capstone Project (Phase 1)
Year 4, Semester 2	
IFB399	Capstone Project (Phase 2)
Select one of:	
CAB401	High Performance and Parallel Computing
CAB402	Programming Paradigms
CAB403	Systems

	Programming

Semesters

Code	Title
Year 1, Semester 1	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
Year 1, Semester 2	
IFB104	Building IT Systems
IFB130	Database Management
Year 2, Semester 1	
IFB103	Designing for IT
IT Core Unit Option	
Year 2, Semester 2	
IAB201	Modelling Information Systems
IAB202	Business of Information Technology
Year 3, Semester 1	
IAB203	Business Process Modelling
IAB204	Business Analysis
Year 3, Semester 2	
IAB205	Corporate Systems
IFB299	IT Project Design and Development
Year 4, Semester 1	
IFB398	Capstone Project (Phase 1)
Select one of:	
IAB302	Information Systems Consulting
IAB303	Business Intelligence
IAB304	Project Management
Year 4, Semester 2	
IAB301	Enterprise Architecture
IFB399	Capstone Project (Phase 2)

Bachelor of Applied Science/Bachelor of Laws

Handbook

Year	2017
QUT code	IX72
CRICOS	066294B
Duration (full-time)	5.5 years
OP	5
Rank	92
OP Guarantee	Yes
Campus	Gardens Point
Total credit points	528
Credit points full-time sem.	48
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Marion Bateson (Science); ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au; Law Curriculum: Dr Anna Huggins or Law Students Jennifer Yule, Directors of Undergraduate Programs ph: +61 7 3138 2707; law_enquiries@qut.edu.au
Discipline Coordinator	Dr Perry Hartfield (Biochemistry); Dr Marion Bateson (Biotechnology); Associate Professor Dennis Arnold (Chemistry); Dr Ian Williamson (Ecology); Dr Ian Williamson (Environmental Science); Dr Emad Kirjakous (Forensic Science); Dr Craig Sloss (Geoscience); Dr Christine Knox (Microbiology); Dr Stephen Hughes (Physics); Law Curriculum Dr Anna Huggins; Law Students Jennifer Yule Science: +61 7 3138 8822; sef.enquiry@qut.edu.au / Law: +61 7 3138 2707; law_enquiries@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (English (4, SA) and Maths B (4, SA)).

International Subject prerequisites

- Maths B
- English

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies (English (4, SA) and Maths B (4, SA)).

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Professional Recognition

Graduates will satisfy the requirements for membership in the relevant professional body for their science major. See Studyfinder for details on the Bachelor of Applied Science majors.

At the end of your Law degree you will have completed the necessary units for admission to legal practice in Australia. To become a practising lawyer you will need to complete further practical legal training (e.g. Graduate Diploma in Legal Practice) and then apply for admission.

Course Design

The course is designed to cover all major areas of the law as well as allowing students to choose any of the following science majors that are offered in the Bachelor of Applied Science (SC01) course: biochemistry, biotechnology, chemistry, ecology, environmental science, forensic science, geoscience, microbiology and physics.

To complete the double degree in a shorter period of time, the co-major will be taken from the law program therefore it is not possible for students to choose any of the co-majors listed under the Bachelor of Applied Science course.

Domestic Course structure

Course structure

You will study a combination of science and law units in the first four years, with law units only in the final years. You will also have the opportunity to choose elective units relevant to your career interests.

Course design

The course is designed to cover all major areas of the law as well as allowing students to choose any of the following science majors that are offered in the Bachelor of Applied Science (SC01) course:

- biochemistry
- biotechnology
- chemistry
- ecology
- environmental science
- forensic science
- geoscience
- microbiology
- physics.

To complete the double degree in a shorter period of time, the co-major will be taken from the law program therefore it is not possible for students to choose any of the co-majors listed under the Bachelor of Applied Science course.

International Course structure

Course structure

You will study a combination of science and law units in the first four years, with law units only in the final years. You will also have the opportunity to choose elective units relevant to your career interests.

Course design

The course is designed to cover all major areas of the law as well as allowing students to choose any of the following science majors that are offered in the Bachelor of Applied Science (SC01) course:

- biochemistry
- biotechnology
- chemistry
- ecology
- environmental science

- forensic science
- geoscience
- microbiology
- physics.

To complete the double degree in a shorter period of time, the co-major will be taken from the law program therefore it is not possible for students to choose any of the co-majors listed under the Bachelor of Applied Science course.

Sample Structure

The new Bachelor of Laws (Honours) is effective from semester 1, 2015. As a result of this new course, some of the unit codes have changed to LLBxxx. Your study plan will be updated to reflect these changes. For information regarding these changes, please refer to the QUT Real Law (LAW_Real_Law) Blackboard site under My Community on your blackboard homepage or contact law_enquiries@qut.edu.au for further information.

Before enrolling in an option (elective) unit, you must ensure you have met any pre- or co-requisite requirements. You can check this by referring to the unit outlines on QUT Virtual.

Semesters

Code	Title
Year 1 Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Law Core Unit	
Law Core Unit	
Year 1 Semester 2	
Science Core Unit Option	
Science Core Unit Option	
Law Core Unit	
Law Core Unit	
Year 2, Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
Law Core Unit	
Law Core Unit	
Year 2, Semester 2	
Science Major Unit	
Science Major Unit	
Law Core Unit	
Law Core Unit	
Year 3, Semester 1	
Science Major Unit	
Science Major Unit	
Law Core Unit	
Law Core Unit	
Year 3, Semester 2	
Science Major Unit	
Science Major Unit	
Law Core Unit	
Law Core Unit	
Year 4, Semester 1	
Science Major Unit	
Science Major Unit	
Law Core Unit	
Law Core Unit	
Year 4, Semester 2	
Science Major Unit	
Science Major Unit	
Law Core Unit	
Law Core Unit	
Year 5, Semester 1	
Law Core Unit	
Law Core Unit	
Law General Elective	
Law General Elective	
Year 5, Semester 2	
Law Core Unit	
Law General Elective	
Law General Elective	
Law General Elective	
Year 6, Semester 1	
Law General Elective	
Law General Elective	
Law General Elective	
Law General Elective	
Elective Information	
Students may complete up to 4 non-law electives.	

The new Bachelor of Laws (Honours) is effective from semester 1, 2015. As a result of this new course, some of the unit codes have changed to LLBxxx. Your study plan will be updated to reflect these changes. For information regarding these changes, please refer to the QUT Real Law (LAW_Real_Law) Blackboard site under My Community on your blackboard homepage or contact law_enquiries@qut.edu.au for further information.

Before enrolling in an option (elective) unit, you must ensure you have met any pre- or co-requisite requirements. You can check this by referring to the unit outlines on QUT Virtual.

Introductory Law Electives	
Code	**Title**
LLB140	Human Rights Law
LLB141	Introduction to International Law
LLB142	Regulation of Business

The new Bachelor of Laws (Honours) is effective from semester 1, 2015. As a result of this new course, some of the unit codes have changed to LLBxxx. Your study plan will be updated to reflect these changes. For information regarding these changes, please refer to the QUT Real Law (LAW_Real_Law) Blackboard site under My Community on your blackboard homepage or contact law_enquiries@qut.edu.au for further information.

Before enrolling in an option (elective) unit, you must ensure you have met any pre- or co-requisite requirements. You can check this by referring to the unit outlines on QUT Virtual.

General Law Electives List	
Code	**Title**
LLB240	Chinese Legal System
LLB241	Discrimination and Equal Opportunity Law
LLB242	Media Law
LLB243	Family Law
LLB244	Criminal Law Sentencing
LLB245	Sports Law
LLB340	Banking and Finance Law
LLB342	Immigration and Refugee Law
LLB344	Intellectual Property Law
LLB345	Internet Law
LLB346	Succession Law
LLB347	Taxation Law
LLB348	Socio-Legal Research Methods
LLB349	Japanese Law
LLB440	Environmental Law
LLB441	Commercial

	Contracts in Practice
LLB442	Legal Clinic (Advanced)
LLB443	Mining and Resources Law
LLB444	Real Estate Transactions
LLB445	International Commercial Arbitration
LLB460	Competition Moots A
LLB461	Competition Moots B
LLB462	Learning in Professional Practice
LLB463	Legal Clinic (Organised Program)
LLB464	Legal Clinic (International)
JSB300	Criminal Investigation and Prosecution

This course has been replaced with IX81 Bachelor of Business / Bachelor of Laws (Honours) from 2015 and the units have been recoded. Please refer to the QUT Real Law (LAW_Real_Law) Blackboard site under My Community on your blackboard homepage or contact law_enquiries@qut.edu.au for further information.

Before enrolling in an option (elective) unit, you must ensure you have met any pre- or co-requisite requirements. You can check this by referring to the unit outlines on QUT Virtual.

Advanced Law Electives	
Code	Title
LLH470	Commercial Contracts in Practice
LLH471	Health Law and Practice
LLH472	Public International Law
LLH473	Independent Research Project
LLH474	Insolvency Law
LLH475	Theories of Law
LLH476	Competition Law
LLH477	Innovation and Intellectual Property Law

Bachelor of Science/Bachelor of Laws (Honours)

Handbook

Year	2017
QUT code	IX80
CRICOS	083029M
Duration (full-time)	5.5 years
OP	5
Rank	91
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9800 per year full-time (96 credit points)
International fee (indicative)	2017: $29900 per year full-time (96 credit points)
Total credit points	528
Credit points full-time sem.	48
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Graham Johnson (Science); ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au; Jennifer Yule (Law); ph: +61 7 3138 2707; Email: law_enquiries@qut.edu.au
Discipline Coordinator	Jennifer Yule (Law); Dr Marion Bateson (Biological Science); Dr James Blinco (Chemistry - previously Dr Sara Couperthwaite in SEM-1 2017); Dr Luke Nothdurft (Earth Science); Dr Andrew Baker (Environmental Science); and Prof Nunzio Motto (Physics - previously Dr Jamie Trapp in SEM-1 2017). Science: +61 7 3138 8822; Law: +61 7 3138 2707 Science: sef.enquiry@qut.edu.au; Law: law_enquiries@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

Recommended Study: At least one of Chemistry, Physics, Biology, Geography, Earth Science or Maths C. We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended Study: At least one of Chemistry, Physics, Biology, Geography, Earth Science or Maths C.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Structure Information

Students are required to complete 528 credit points, comprised of 192 credit points for the Bachelor of Science program and 336 credit points for the Bachelor of Laws program. You will study science and law units in your first four years and for the remainder of this course you will concentrate on law studies.

Under the Science component students will complete 16 units in total. Students will choose any of the following science majors that are offered in the Bachelor of Science (ST01) course: biology, chemistry, earth science, environmental science and physics.

Under the Law component students will complete 336 credit points of core units and a mixture of Introductory, General and Advanced Electives. Students may select up to 48 credit points of non-law electives or 48 credit points of a University-wide minor in place of four of the General Electives. Successful completion of a minor will be recognised on the Academic Record and / or the Australian Higher Education Graduation Statement.

Total Law credit points: 336
Total credit points for core units: 240
Total credit points for elective units: 96
Honours Level Units

96 credit points of Honours units listed below will be used to determine the Honours Levels of the LLB (Hons):
LLH201 Legal Research,
LLH206 Administrative Law,
LLH302 Ethics and the Legal Profession,
LLH305 Corporate Law,
LLH401 Legal Research Capstone (24 cps) and
two Advanced Electives in law.

Professional Recognition

The QUT LLB (Hons) is an approved degree for the purposes of the Legal Practitioners Admission Rules. Accordingly, it enables graduates to satisfy the academic requirements for admission to practise as a solicitor and/or barrister in all Australian states and territories.
Graduates will satisfy the requirements for membership in the relevant professional body for their science major.

Admission to practice

If, at the end of your degree, you wish to become a legal practitioner, you will need to complete further practical legal training (PLT). QUT also offers PLT in the form of the Graduate Diploma in Legal Practice.

Career Outcomes

As a graduate, you may enter legal practice with an education in both the content and process of science and data analysis that will enable you to deal with the complexities of litigation that have a scientific and technological dimension, such as inventions, trade secrets, quantitative evidence, and constitutional disputes giving rise to environmental issues. On the other hand, you may choose to follow a career path in the sciences, enhancing your opportunities in a particular discipline such as environmental science or biotechnology through your knowledge of the law.

You will graduate with specialised knowledge of cutting-edge technologies

and extensive practical experience using the latest techniques. You have a broad range of options to choose from and the flexibility to create your own personal science degree program.

In developing the LLB (Hons) the Faculty recognises that graduates are increasingly seeking a broad range of careers including, but not limited to, legal practice. The defining nature of the QUT LLB (Hons) is its real-world applied nature which will equip you with advanced knowledge and research and other skills and that meet the needs of not only the legal profession, but also government, community organisations, business and industry.

The LLB (Hons) provides students with an opportunity to advance their knowledge of law in specialised areas through the elective units offered as part of the course. The elective units allow you to study areas of the law that match your career aspirations.
Career opportunities include working in general legal practice, specialist legal practice, government departments and employment in private enterprise.

Non-standard attendance

Field work is a requirement in some areas of science.

Deferment

Domestic students can defer their offer in this course for one year. In exceptional circumstances up to 12 months of additional deferment may be granted.

Find out more at deferment

Domestic Course structure

Students are required to complete 528 credit points, comprised of 192 credit points for the Bachelor of Science program and 336 credit points for the Bachelor of Laws program. You will study science and law units in your first four years and for the remainder of this course you will concentrate on law studies.

Under the Science component students will complete 16 units in total. Students will choose any of the following science majors that are offered in the Bachelor of Science (ST01) course: biology, chemistry, earth science, environmental science and physics.

Under the Law component students will complete 336 credit points of core units and a mixture of Introductory, General and Advanced Electives. Students may select up to 48 credit points of non-law electives or 48 credit points of a University-wide minor in place of four of the General Electives. Successful completion of a minor will be recognised on the Academic Record and / or the Australian Higher Education Graduation Statement.

Total Law credit points: 336
Total credit points for core units: 240
Total credit points for elective units: 96

Honours Level Units

96 credit points of Honours units listed below will be used to determine the Honours Levels of the LLB (Hons):
LLH201 Legal Research,
LLH206 Administrative Law,
LLH302 Ethics and the Legal Profession,
LLH305 Corporate Law,
LLH401 Legal Research Capstone (24 cps) and
two Advanced Electives in law.

International Course structure

Students are required to complete 528 credit points, comprised of 192 credit points for the Bachelor of Science program and 336 credit points for the Bachelor of Laws program. You will study science and law units in your first four years and for the remainder of this course you will concentrate on law studies.

Under the Science component students will complete 16 units in total. Students will choose any of the following science majors that are offered in the Bachelor of Science.(ST01) course: biology, chemistry, earth science, environmental science and physics.

Under the Law component students will complete 336 credit points of core units and a mixture of Introductory, General and Advanced Electives. Students may select up to 48 credit points of non-law electives or 48 credit points of a University-wide minor in place of four of the General Electives. Successful completion of a minor will be recognised on the Academic Record and / or the Australian Higher Education Graduation Statement.

Total Law credit points: 336
Total credit points for core units: 240
Total credit points for elective units: 96

Honours Level Units

96 credit points of Honours units listed below will be used to determine the Honours Levels of the LLB (Hons):
LLH201 Legal Research,
LLH206 Administrative Law,
LLH302 Ethics and the Legal Profession,
LLH305 Corporate Law,
LLH401 Legal Research Capstone (24 cps) and
two Advanced Electives in law.

Sample Structure

The new Bachelor of Laws (Honours) is effective from semester 1, 2015. As a result of this new course, some of the unit codes have changed to LLBxxx. Your study plan will be updated to reflect these changes. For information regarding these changes, please refer to the QUT Real Law (LAW_Real_Law) Blackboard site under My Community on your blackboard homepage or contact law_enquiries@qut.edu.au for further information.

Before enrolling in an option (elective) unit, you must ensure you have met any pre- or co-requisite requirements. You can check this by referring to the unit outlines on QUT Virtual.

Semesters

Code	Title
Year 1 Semester 1	
LLB101	Introduction to Law
LLB102	Torts
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 1 Semester 2	
LLB105	Legal Problems and Communication
LLB106	Criminal Law
Science Core Unit Option	
Science Core Unit Option	
Year 2 Semester 1	
LLB103	Dispute Resolution
LLB104	Contemporary Law and Justice
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
Year 2 Semester 2	
LLH201	Legal Research
Introductory Law Elective	

Bachelor of Science/Bachelor of Laws (Honours)

Science Major Unit	
Science Major Unit	
Year 3 Semester 1	
LLB202	Contract Law
LLB203	Constitutional Law
Science Major Unit	
Science Major Unit	
Year 3 Semester 2	
LLB204	Commercial and Personal Property Law
LLB205	Equity and Trusts
Science Major Unit	
Science Major Unit	
Year 4 Semester 1	
LLB301	Real Property Law
General Law Elective	
Science Major Unit	
Science Major Unit	
Year 4 Semester 2	
LLB303	Evidence
LLH206	Administrative Law
Science Major Unit	
Science Major Unit	
Year 5 Semester 1	
LLH302	Ethics and the Legal Profession
LLB304	Commercial Remedies
General Law Elective or Non-law Elective or University-wide Minor Unit	
General Law Elective or Non-law Elective or University-wide Minor Unit	
Year 5 Semester 2	
LLB306	Civil Procedure
LLH305	Corporate Law
General Law Elective or Non-law Elective or University-wide Minor Unit	
General Law Elective or Non-law Elective or University-wide Minor Unit	
Year 6 Semester 1	
LLH401	Legal Research Capstone
Advanced Law Elective	
Advanced Law Elective	
Elective Information	
Students may complete up to 4 non-law electives or a university wide minor comprised of 4 units in place of the equivalent number of general law electives.	

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 1, Semester 2	
Science Core Unit Option	
Science Core Unit Option	
Year 2, Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
Year 2, Semester 2	
BVB101	Foundations of Biology
BVB102	Evolution
Year 3, Semester 1	
BVB201	Biological Processes
BVB202	Experimental Design and Quantitative Methods
Year 3, Semester 2	
BVB203	Plant Biology
BVB204	Ecology
Year 4, Semester 1	
BVB301	Animal Biology
BVB305	Microbiology and the Environment
Year 4, Semester 2	
BVB302	Applied Biology
BVB304	Integrative Biology

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 1, Semester 2	
Science Core Unit Option	
Science Core Unit Option	
Year 2, Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods

	in Science
Year 2, Semester 2	
CVB101	General Chemistry
CVB102	Chemical Structure and Reactivity
Year 3, Semester 1	
CVB201	Inorganic Chemistry
CVB202	Analytical Chemistry
Year 3, Semester 2	
CVB203	Physical Chemistry
CVB204	Organic Structure and Mechanisms
Year 4, Semester 1	
CVB301	Organic Chemistry: Strategies for Synthesis
CVB302	Applied Physical Chemistry
Year 4, Semester 2	
CVB303	Coordination Chemistry
CVB304	Chemistry Research Project

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 1, Semester 2	
Science Core Unit Option	
Science Core Unit Option	
Year 2, Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
Year 2, Semester 2	
ERB101	Earth Systems
ERB102	Evolving Earth
Year 3, Semester 1	
ERB201	Destructive Earth: Natural Hazards
ERB202	Marine Geoscience
Year 3, Semester 2	
ERB203	Sedimentary Geology and Stratigraphy
ERB204	Deforming Earth: Fundamentals of Structural Geology

Year 4, Semester 1	
ERB301	Chemical Earth
ERB302	Applied Geophysics
Year 4, Semester 2	
ERB303	Energy Resources and Basin Analysis
ERB304	Dynamic Earth: Plate Tectonics

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 1, Semester 2	
Science Core Unit Option	
Science Core Unit Option	
Year 2, Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
Year 2, Semester 2	
ERB101	Earth Systems
EVB102	Ecosystems and the Environment
Year 3, Semester 1	
BVB202	Experimental Design and Quantitative Methods
EVB201	Global Environmental Issues
Year 3, Semester 2	
BVB204	Ecology
[EVB301 replaced by BVB204 in 2017]	
EVB203	Geospatial Information Science
Year 4, Semester 1	
EVB302	Environmental Pollution
EVB312	Soils and the Environment
[EVB212 replaced by EVB312 in 2017]	
Year 4, Semester 2	
ERB310	Groundwater Systems
[ENB380 replaced by ERB310 in 2017]	
EVB304	Case Studies in Environmental Science

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 1, Semester 2	
Science Core Unit Option	
Science Core Unit Option	
Year 2, Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
Year 2, Semester 2	
PVB101	Physics of the Very Large
PVB102	Physics of the Very Small
Year 3, Semester 1	
PVB200	Computational and Mathematical Physics
PVB203	Experimental Physics
[PVB201 replaced by PVB200 in 2015.]	
Year 3, Semester 2	
PVB202	Mathematical Methods in Physics
PVB204	Electromagnetism
Year 4, Semester 1	
PVB301	Materials and Thermal Physics
PVB302	Classical and Quantum Physics
Year 4, Semester 2	
PVB303	Nuclear and Particle Physics
PVB304	Physics Research

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Before enrolling in an option (elective) unit, you must ensure you have met any pre- or co-requisite requirements. You can check this by referring to the unit outlines on QUT Virtual.

Introductory Law Electives	
Code	Title
LLB140	Human Rights Law
LLB141	Introduction to International Law
LLB142	Regulation of Business

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Before enrolling in an option (elective) unit, you must ensure you have met any pre- or co-requisite requirements. You can check this by referring to the unit outlines on QUT Virtual.

General Law Electives List	
Code	Title
LLB240	Chinese Legal System
LLB241	Discrimination and Equal Opportunity Law
LLB242	Media Law
LLB243	Family Law
LLB244	Criminal Law Sentencing
LLB245	Sports Law
LLB246	Principles of Labour Law
LLB340	Banking and Finance Law
LLB342	Immigration and Refugee Law
LLB344	Intellectual Property Law
LLB345	Internet Law
LLB346	Succession Law
LLB347	Taxation Law
LLB348	Socio-Legal Research Methods

LLB349	Japanese Law
LLB440	Environmental Law
LLB443	Mining and Resources Law
LLB444	Real Estate Transactions
LLB445	International Commercial Arbitration
LLB460	Competition Moots A
LLB461	Competition Moots B
LLB462	Learning in Professional Practice
LLB463	Legal Clinic (Organised Program)
LLB464	Legal Clinic (International)

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Before enrolling in an option (elective) unit, you must ensure you have met any pre- or co-requisite requirements. You can check this by referring to the unit outlines on QUT Virtual.

Advanced Law Electives	
Code	Title
LLH470	Commercial Contracts in Practice
LLH471	Health Law and Practice
LLH472	Public International Law
LLH473	Independent Research Project
LLH474	Insolvency Law
LLH475	Theories of Law
LLH477	Innovation and Intellectual Property Law

Bachelor of Information Technology/Bachelor of Laws (Honours)

Handbook

Year	2017
QUT code	IX87
CRICOS	083025D
Duration (full-time)	5.5 years
OP	5
Rank	91
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9800 per year full-time (96 credit points)
International fee (indicative)	2017: $27600 per year full-time (96 credit points)
Total credit points	528
Credit points full-time sem.	48
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Mr Mike Roggenkamp (Information Technology); ph: 61 7 3138 8822; email: sef.enquiry@qut.edu.au; or, Director of UG Programs Jen Yule (Law Students) law_enquiries@qut.edu.au or phone 61 7 3138 2707
Discipline Coordinator	Law: Jennifer Yule; IT: Professor Colin Fidge (Computer Science); and IT Course Coordinator (Information Systems). Law: +61 7 3138 2707; IT: +61 7 3138 8822 Law: law_enquiries@qut.edu.au; IT: sef.enquiry@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths A, B or C
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

International Subject prerequisites

- Maths A, B or C

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course structure information

Students are required to complete 528 credit points, comprised of 192 credit points for the Bachelor of Information Technology program and 336 credit points for the Bachelor of Laws program.

Requirements for the completion of the Bachelor of Information Technology component are as follows:

(a) 72 credit points (6 units) of IT Core units, which includes 24 credit points (2 units) of Option Units selected from an approved list.
(b) 120 credit points (10 units) of Major Core units

Information Technology Majors
Choose your primary area of study, also known as your major, in the following specialisation areas: Information Systems or Computer Science.

Information Technology Options List
The Bachelor of Information Technology Core Unit Options List comprises a range of units from which you choose to undertake two (2). The options include introductory units from a wide variety of disciplines offered at QUT.

Under the Law component students will complete 336 credit points of core units and a mixture of Introductory, General and Advanced Electives. Students may select up to 48 credit points of non-law electives or 48 credit points of a University-wide minor in place of four of the General Electives. Successful completion of a minor will be recognised on the Academic Record and / or the Australian Higher Education Graduation Statement.

Total Law credit points: 336
Total credit points for core units: 240
Total credit points for elective units: 96

Honours Level Units
96 credit points of Honours units listed below will be used to determine the Honours Levels of the LLB (Hons):
LLH201 Legal Research,
LLH206 Administrative Law,
LLH302 Ethics and the Legal Profession,
LLH305 Corporate Law,
LLH401 Legal Research Capstone (24 cps) and
two Advanced Electives in law.

Professional Recognition

This course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

The QUT LLB (Hons) is an approved degree for the purposes of the Legal Practitioners Admission Rules. Accordingly, it enables graduates to satisfy the academic requirements for admission to practise as a solicitor and/or barrister in all Australian states and territories.

Admission to practice

If, at the end of your degree, you wish to become a legal practitioner, you will need to complete further practical legal training (PLT). QUT also offers PLT in the form of the Graduate Diploma in Legal Practice.

Career Outcomes

Graduates may develop careers in cyberlaw, intellectual property and privacy, dealing with the legal regulation of the Internet including downloading music, mobile phone camera use or copyright issues. You may become a legal practitioner, barrister, in-house counsel, government lawyer or policy

adviser. There is also increased demand for roles in edemocracy both in egovernment service delivery and political campaigning.

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Career opportunities include working in general legal practice, specialist legal practice, government departments and employment in private enterprise.

Pathways to Further Studies

The QUT Bachelor of Information Technology is located at Level 7 of the Australian Qualifications Framework (AQF). Eligible graduates may continue their studies in this discipline with an additional honours year in (IN10) Bachelor of Information Technology (Honours).

On successful completion of the Bachelor of Laws, there are a number of further study options open to you. The Bachelor of Laws meets the entry requirements for Practical Legal Training courses (for example, the QUT Graduate Diploma in Legal Practice). In addition, successful completion of the law degree will allow you to pursue postgraduate opportunities through research- and coursework-based higher degrees in law.

Deferment

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Find out more at deferment

Domestic Course structure

Students are required to complete 528 credit points, comprised of 192 credit points for the Bachelor of Information Technology program and 336 credit points for the Bachelor of Laws program.

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LLH401 Legal Research Capstone (24 cps) and
2 x 12 cp Advanced Law Electives

International Course structure

Students are required to complete 528 credit points, comprised of 192 credit points for the Bachelor of Information Technology program and 336 credit points for the Bachelor of Laws program.

Requirements for the completion of the Bachelor of Information Technology component are as follows:

1. 72 credit points (6 units) of IT Core units, which includes 24 credit points (2 units) of Option Units selected from an approved list.
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LLH206 Administrative Law,
LLH302 Ethics and the Legal Profession,
LLH305 Corporate Law,
LLH401 Legal Research Capstone (24 cps) and
2 x 12 cp Advanced Law Electives.

Sample Structure

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Before enrolling in an option (elective) unit, you must ensure you have met any pre- or co-requisite requirements. You can check this by referring to the unit outlines on QUT Virtual.

Bachelor of Information Technology/Bachelor of Laws (Honours)

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1
- Year 5, Semester 2
- Year 6, Semester 1

Code	Title
Year 1, Semester 1	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
LLB101	Introduction to Law
LLB102	Torts
Year 1, Semester 2	
IFB103	Designing for IT
IFB104	Building IT Systems
LLB105	Legal Problems and Communication
LLB106	Criminal Law
Year 2, Semester 1	
IT Core Option Unit	
IT Core Option Unit	
LLB103	Dispute Resolution
LLB104	Contemporary Law and Justice
Year 2, Semester 2	
IT Major Unit	
IT Major Unit	
Introductory Law Elective	
LLH201	Legal Research
Year 3, Semester 1	
IT Major Unit	
IT Major Unit	
LLB202	Contract Law
LLB203	Constitutional Law
Year 3, Semester 2	
IT Major Unit	
IT Major Unit	
LLB204	Commercial and Personal Property Law
LLB205	Equity and Trusts
Year 4, Semester 1	
IT Major Unit	
IT Major Unit	
LLB301	Real Property Law
General Law Elective	
Year 4, Semester 2	
IT Major Unit	
IT Major Unit	
LLB303	Evidence
LLH206	Administrative Law
Year 5, Semester 1	
LLB304	Commercial Remedies
LLH302	Ethics and the Legal Profession
General Law Elective or Non-law Elective or University-wide Minor Unit	
General Law Elective or Non-law Elective or University-wide Minor Unit	
Year 5, Semester 2	
LLB306	Civil Procedure
LLH305	Corporate Law
General Law Elective or Non-law Elective or University-wide Minor Unit	
General Law Elective or Non-law Elective or University-wide Minor Unit	
Year 6, Semester 1	
LLH401	Legal Research Capstone
Advanced Law Elective	
Advanced Law Elective	

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1
- Year 5, Semester 2
- Year 6, Semester 1

Code	Title
Year 1, Semester 1	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
LLB101	Introduction to Law
LLB102	Torts
Year 1, Semester 2	
IFB130	Database Management
IFB104	Building IT Systems
LLB105	Legal Problems and Communication
LLB106	Criminal Law
Year 2, Semester 1	
IFB103	Designing for IT
IT Major Unit	
LLB103	Dispute Resolution
LLB104	Contemporary Law and Justice
Year 2, Semester 2	
IT Major Unit	
IT Major Unit	
Introductory Law Elective	
LLH201	Legal Research
Year 3, Semester 1	
IT Major Unit	
IT Major Unit	
LLB202	Contract Law
LLB203	Constitutional Law
Year 3, Semester 2	
IT Major Unit	
IT Major Unit	
LLB204	Commercial and Personal Property Law
LLB205	Equity and Trusts
Year 4, Semester 1	
IT Major Unit	
IT Major Unit	
LLB301	Real Property Law
General Law Elective	
Year 4, Semester 2	
IT Major Unit	
IT Core Option Unit	
LLH206	Administrative Law
LLB303	Evidence
Year 5, Semester 1	
LLH302	Ethics and the Legal Profession
LLB304	Commercial Remedies
General Law Elective or Non-law Elective or University-wide Minor Unit	
General Law Elective or Non-law Elective or University-wide Minor Unit	
Year 5, Semester 2	
LLH305	Corporate Law
LLB306	Civil Procedure
General Law Elective or Non-law Elective or University-wide Minor Unit	
General Law Elective or Non-law Elective or University-wide Minor Unit	
Year 6, Semester 1	
LLH401	Legal Research Capstone
Advanced Law Elective	
Advanced Law Elective	

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Bachelor of Information Technology/Bachelor of Laws (Honours)

Code	Title
Year 1, Semester 1	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
Year 1, Semester 2	
IFB104	Building IT Systems
IFB130	Database Management
Year 2, Semester 1	
IFB103	Designing for IT
IT Core Unit Option	
Year 2, Semester 2	
CAB201	Programming Principles
CAB202	Microprocessors and Digital Systems
Year 3, Semester 1	
CAB203	Discrete Structures
CAB302	Software Development
Year 3, Semester 2	
CAB303	Networks
IFB299	IT Project Design and Development
Year 4, Semester 1	
CAB301	Algorithms and Complexity
IFB398	Capstone Project (Phase 1)
Year 4, Semester 2	
IFB399	Capstone Project (Phase 2)
Select one of:	
CAB401	High Performance and Parallel Computing
CAB402	Programming Paradigms
CAB403	Systems Programming

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
Year 1, Semester 2	
IFB104	Building IT Systems
IFB130	Database Management
Year 2, Semester 1	
IFB103	Designing for IT
IT Core Unit Option	
Year 2, Semester 2	
IAB201	Modelling Information Systems
IAB202	Business of Information Technology
Year 3, Semester 1	
IAB203	Business Process Modelling
IAB204	Business Analysis
Year 3, Semester 2	
IAB205	Corporate Systems
IFB299	IT Project Design and Development
Year 4, Semester 1	
IFB398	Capstone Project (Phase 1)
Select one of:	
IAB302	Information Systems Consulting
IAB303	Business Intelligence
IAB304	Project Management
Year 4, Semester 2	
IAB301	Enterprise Architecture
IFB399	Capstone Project (Phase 2)

The new Bachelor of Laws (Honours) is effective from semester 1, 2015. As a result of this new course, some of the unit codes have changed to LLBxxx. Your study plan will be updated to reflect these changes. For information regarding these changes, please refer to the QUT Real Law (LAW_Real_Law) Blackboard site under My Community on your blackboard homepage or contact law_enquiries@qut.edu.au for further information.

Before enrolling in an option (elective) unit, you must ensure you have met any pre- or co-requisite requirements. You can check this by referring to the unit outlines on QUT Virtual.

Introductory Law Electives	
Code	Title
LLB140	Human Rights Law
LLB141	Introduction to International Law
LLB142	Regulation of Business

The new Bachelor of Laws (Honours) is effective from semester 1, 2015. As a result of this new course, some of the unit codes have changed to LLBxxx. Your study plan will be updated to reflect these changes. For information regarding these changes, please refer to the QUT Real Law (LAW_Real_Law) Blackboard site under My Community on your blackboard homepage or contact law_enquiries@qut.edu.au for further information.

Before enrolling in an option (elective) unit, you must ensure you have met any pre- or co-requisite requirements. You can check this by referring to the unit outlines on QUT Virtual.

General Law Electives List	
Code	Title
LLB240	Chinese Legal System
LLB241	Discrimination and Equal Opportunity Law
LLB242	Media Law
LLB243	Family Law
LLB244	Criminal Law Sentencing
LLB245	Sports Law
LLB246	Principles of Labour Law
LLB340	Banking and Finance Law
LLB342	Immigration and Refugee Law
LLB344	Intellectual Property Law
LLB345	Internet Law
LLB346	Succession Law
LLB347	Taxation Law
LLB348	Socio-Legal Research Methods
LLB349	Japanese Law
LLB440	Environmental Law
LLB443	Mining and Resources Law
LLB444	Real Estate Transactions
LLB445	International Commercial Arbitration
LLB460	Competition Moots A
LLB461	Competition Moots B
LLB462	Learning in

	Professional Practice
LLB463	Legal Clinic (Organised Program)
LLB464	Legal Clinic (International)

The new Bachelor of Laws (Honours) is effective from semester 1, 2015. As a result of this new course, some of the unit codes have changed to LLBxxx. Your study plan will be updated to reflect these changes. For information regarding these changes, please refer to the QUT Real Law (LAW_Real_Law) Blackboard site under My Community on your blackboard homepage or contact law_enquiries@qut.edu.au for further information.

Before enrolling in an option (elective) unit, you must ensure you have met any pre- or co-requisite requirements. You can check this by referring to the unit outlines on QUT Virtual.

Advanced Law Electives	
Code	Title
LLH470	Commercial Contracts in Practice
LLH471	Health Law and Practice
LLH472	Public International Law
LLH473	Independent Research Project
LLH474	Insolvency Law
LLH475	Theories of Law
LLH477	Innovation and Intellectual Property Law

Bachelor of Business/Bachelor of Games and Interactive Environments

Handbook

Year	2017
QUT code	IX93
CRICOS	092651C
Duration (full-time)	4 years
OP	8
Rank	84
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $28100 per year full-time (96 credit points)
Total credit points	384
Credit points full-time sem.	48
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Director of Studies, QUT Business School; email: bus@qut.edu.au; or Dr Ross Brown (Games and Interactive Environment); email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Associate Prof Belinda Luke (Accountancy); Dr Louise Kelly (Advertising); Dr Radhika Lahiri (Economics); Dr Mark Doolan (Finance); Dr Ali Muhammad (Human Resource Management); Dr Shane Mathews (International Business); Dr Kavoos Mohannak (Management); Prof Larry Neale (Marketing); and Dr Anne Lane (Public Relations)

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths A, B or C
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

International Subject prerequisites

- Maths A, B or C

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Domestic Course structure

Students are required to complete 384 credit points comprised of 192 credit points from the Bachelor of Business program and 192 credit points from the Bachelor of Games and Interactive Environments program.

Business component:

- 8 units (96 credit points) of Business School core units
- 8 units (96 credit points) of Major core units*

** Please note Accounting major students complete 6 business core units (72 credit points) and 10 accountancy major units (120 credit points) to allow them to complete professional requirements.*

Games and Interactive Environments component:

- 6 units (72 credit points) of games and interactive environments core units, which includes 2 units (24 credit points) of option units** selected from an approved list.
- 10 units (120 credit points) of Major core units.

*** Unit options list - comprises a range of units from which you choose to undertake two (2). The core option choices provide you with space in your course to explore other fields such as within Games and Interactive Environments, Information Technology. The core option choices can be used to complement your Major studies.*

International Course structure

Students are required to complete 384 credit points comprised of 192 credit points from the Bachelor of Business program and 192 credit points from the Bachelor of Games and Interactive Environments program.

Business component:

- 8 units (96 credit points) of Business School core units
- 8 units (96 credit points) of Major core units*

** Please note Accounting major students complete 6 business core units (72 credit points) and 10 accountancy major units (120 credit points) to allow them to complete professional requirements.*

Games and Interactive Environments component:

- 6 units (72 credit points) of games and interactive environments core units, which includes 2 units (24 credit points) of option units** selected from an approved list.
- 10 units (120 credit points) of Major core units.

*** Unit options list - comprises a range of units from which you choose to undertake two (2). The core option choices provide you with space in your course to explore other fields such as within Games and Interactive Environments, Information Technology. The core option choices can be used to complement your Major studies.*

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Bachelor of Business/Bachelor of Games and Interactive Environments

Code	Title
Year 1, Semester 1	
Business School Core Unit	
Business School Core Unit	
BGIE Core Unit	
BGIE Core Unit	
Year 1, Semester 2	
Business School Core Unit	
Business School Core Unit	
BGIE Core Unit	
BGIE Core Unit	
Year 2, Semester 1	
Business School Core Unit	
Business School Core Unit	
BGIE Major Unit (Studio)	
BGIE Core Option Unit	
Year 2, Semester 2	
Business School Core Unit	
Business School Major Unit	
BGIE Major Unit	
BGIE Major Unit	
Year 3, Semester 1	
Business School Major Unit	
Business School Major Unit	
BGIE Major Unit	
BGIE Core Unit Option	
Year 3, Semester 2	
Business School Major Unit	
Business School Major Unit	
BGIE Major Unit (Studio)	
BGIE Major Unit	
Year 4, Semester 1	
Business School Major Unit	
Business School Major Unit	
BGIE Major Unit	
BGIE Major Unit (Studio)	
Year 4, Semester 2	
Business School Major Unit	
Business School Major Unit	
BGIE Major Unit (Capstone)	
BGIE Major Unit (Studio)	

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
IGB180	Computer Games Studies
IGB181	Game Production and Technology
Year 1, Semester 2	
IFB103	Designing for IT
IFB104	Building IT Systems
Year 2, Semester 1	
IGB100	Game Studio 1: Mini-Game Development
BGIE Core Unit Option	
Year 2, Semester 2	
KNB123	Animation and Motion Graphics
KNB124	3D Animation 1
Year 3, Semester 1	
KNB212	Real-time 3D Computer Graphics
BGIE Core Unit Option	
Year 3, Semester 2	
IGB200	Game Studio 2: Applied Game Development
KNB221	Animation: CG Toolkit
OR	
KNB222	Virtual Environments
Year 4, Semester 1	
IGB300	Capstone Project (Game Design)
KNB211	3D Animation 2
Year 4, Semester 2	
IGB301	Capstone Project (Game Development)
IGB400	Game Studio 3: Game Innovation

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
IGB180	Computer Games Studies
IGB181	Game Production and Technology
Year 1, Semester 2	
IFB103	Designing for IT
IFB104	Building IT Systems
Year 2, Semester 1	
IGB100	Game Studio 1: Mini-Game Development
BGIE Core Unit Option	
Year 2, Semester 2	
IGB220	Fundamentals of Game Design
DXB304	Interactive Narrative Design
Year 3, Semester 1	
DXB303	Programming for Visual Designers
BGIE Core Unit Option	
Year 3, Semester 2	
IGB200	Game Studio 2: Applied Game Development
IGB321	Immersive Game Level Design
Year 4, Semester 1	
IGB320	Game Design in Different Contexts
IGB300	Capstone Project (Game Design)
Year 4, Semester 2	
IGB301	Capstone Project (Game Development)
IGB400	Game Studio 3: Game Innovation

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
IGB180	Computer Games Studies
IGB181	Game Production and Technology
Year 1, Semester 2	
IFB103	Designing for IT
IFB104	Building IT Systems
Year 2, Semester 1	
IGB100	Game Studio 1: Mini-Game Development
BGIE Core Unit Option	
Year 2, Semester 2	
CAB201	Programming Principles
IGB283	Game Engine Theory and Application
Year 3, Semester 1	
CAB301	Algorithms and Complexity
BGIE Core Unit Option	
Year 3, Semester 2	
IGB200	Game Studio 2:

	Applied Game Development
IGB381	Game Engine Technology
Year 4, Semester 1	
IGB383	AI for Games
IGB300	Capstone Project (Game Design)
Year 4, Semester 2	
IGB301	Capstone Project (Game Development)
IGB400	Game Studio 3: Game Innovation

Bachelor of Science/Bachelor of Mathematics

Handbook

Year	2017
QUT code	SE20
CRICOS	078353G
Duration (full-time)	4 years
OP	6
Rank	89
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $30100 per year full-time (96 credit points)
Total credit points	384
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Graham Johnson (Science Major); Associate Professor Tim Moroney (Mathematics Major); ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Dr Marion Bateson (Biological Science); Dr James Blinco (Chemistry - previously Dr Sara Couperthwaite in SEM-1 2017); Dr Luke Nothdurft (Earth Science); Dr Andrew Baker (Environmental Science); Prof Nunzio Motto (Physics - previously Dr Jamie Trapp in SEM-1 2017); TBA (Applied and Computational Mathematics – Dr Qianqian Yang in SEM-1 2017 only); Associate Professor Paul Corry (Decision Science); and Dr Chris Drovandi (Statistical Science).

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended Study: At least one of Chemistry, Physics, Biology, Geography, Earth Science or Maths C.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended Study: At least one of Chemistry, Physics, Biology, Geography, Earth Science or Maths C.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Overview

Studying a double degree in applied science and mathematics will provide you with advanced knowledge and skills that are highly sought after by employers. The course is made up of 384 credit points, with each component degree (i.e. Science and Mathematics) comprising 192 credit points each.

From the very first semester, in both your science and your mathematics studies, you will have the opportunity to collaborate with your peers and teaching staff in QUT's exciting new learning environments. You will explore real world problems from multiple scientific, mathematical and statistical perspectives and learn the tools of the trade. Depending on your choices you may find yourself out in the field, working in the laboratory or learning about the impact of scientific discovery on people, policy, industry and the planet. Working with data that you have collected, you will apply fundamental methods of scientific practice, perform scientific analysis, and present your findings. You will learn about a range of career and professional outcomes so that you can get the most from the flexibility the Bachelor of Science has to offer. Your mathematics studies will strengthen your quantitative analysis skills.

Your choice of science major will provide you with in-depth knowledge and expertise in a scientific discipline. Your choice of mathematics units/major will allow you to develop more advanced quantitative skills and problem solving capabilities that can be applied to larger and more complex real world problems. Both of which will prepare you for entry into the workforce or further study. You can even work with industry or get credit to study overseas.

Aim

This double degree aims to provide graduates with opportunities to develop their skills and knowledge in mathematics and science. You will develop the ability to apply mathematics, statistics, computational methods and decision science to real world problems. The Bachelor of Science aims to deliver:

Sample Structure

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
[As of 2015, SEB101, SEB102 and SEB114 have been replaced by SEB104, SEB115 and SEB116.]	
Year 1 Semester 2	
Science Core Options Unit	
Science Core Options Unit	
Year 2 Semester 1	

Bachelor of Science/Bachelor of Mathematics

SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 2 Semester 2	
BVB101	Foundations of Biology
BVB102	Evolution
Year 3 Semester 1	
BVB201	Biological Processes
BVB202	Experimental Design and Quantitative Methods
Year 3 Semester 2	
BVB203	Plant Biology
BVB204	Ecology
Year 4 Semester 1	
BVB301	Animal Biology
BVB305	Microbiology and the Environment
Year 4 Semester 2	
BVB302	Applied Biology
BVB304	Integrative Biology

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
[As of 2015, SEB101, SEB102 and SEB114 have been replaced by SEB104, SEB115 and SEB116.]	
Year 1 Semester 2	
Science Core Options Unit	
Science Core Options Unit	
Year 2 Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 2 Semester 2	
CVB101	General Chemistry
CVB102	Chemical Structure and Reactivity
Year 3 Semester 1	
CVB201	Inorganic Chemistry
CVB202	Analytical Chemistry
Year 3 Semester 2	
CVB203	Physical Chemistry
CVB204	Organic Structure and Mechanisms
Year 4 Semester 1	
CVB301	Organic Chemistry: Strategies for Synthesis
CVB302	Applied Physical Chemistry
Year 4 Semester 2	
CVB303	Coordination Chemistry
CVB304	Chemistry Research Project

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
[As of 2015, SEB101, SEB102 and SEB114 have been replaced by SEB104, SEB115 and SEB116.]	
Year 1 Semester 2	
Science Core Options Unit	
Science Core Options Unit	
Year 2 Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 2 Semester 2	
ERB101	Earth Systems
ERB102	Evolving Earth
Year 3 Semester 1	
ERB201	Destructive Earth: Natural Hazards
ERB202	Marine Geoscience
Year 3 Semester 2	
ERB203	Sedimentary Geology and Stratigraphy
ERB204	Deforming Earth: Fundamentals of Structural Geology
Year 4 Semester 1	
ERB301	Chemical Earth
ERB302	Applied Geophysics
Year 4 Semester 2	
ERB303	Energy Resources and Basin Analysis
ERB304	Dynamic Earth: Plate Tectonics

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
[As of 2015, SEB101, SEB102 and SEB114 have been replaced by SEB104, SEB115 and SEB116.]	
Year 1 Semester 2	
Science Core Options Unit	
Science Core Options Unit	
Year 2 Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 2 Semester 2	
ERB101	Earth Systems
EVB102	Ecosystems and the Environment
Year 3 Semester 1	
BVB202	Experimental Design and Quantitative Methods
EVB201	Global Environmental Issues
Year 3 Semester 2	
BVB204	Ecology
[EVB301 replaced by BVB204 in 2017]	
EVB203	Geospatial Information Science
Year 4 Semester 1	
EVB302	Environmental Pollution
EVB312	Soils and the Environment
[EVB212 replaced by EVB312 in 2017]	
Year 4 Semester 2	
ERB310	Groundwater Systems
[ENB380 replaced by ERB310 in 2017]	
EVB304	Case Studies in Environmental Science

Bachelor of Science/Bachelor of Mathematics

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 1 Semester 2	
PVB101	Physics of the Very Large
PVB102	Physics of the Very Small
Year 2 Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
Year 2 Semester 2	
Science Core Option unit	
Science Core Option unit	
Year 3 Semester 1	
PVB203	Experimental Physics
PVB210	Stellar Astrophysics
Year 3 Semester 2	
PVB204	Electromagnetism
PVB220	Cosmology
Year 4 Semester 1	
PVB301	Materials and Thermal Physics
PVB302	Classical and Quantum Physics
Year 4 Semester 2	
PVB303	Nuclear and Particle Physics
PVB304	Physics Research

Semesters

- Applied and Computational Mathematics Major unit set:
- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2
- NOTE:

Code	Title
Applied and Computational Mathematics Major unit set:	
Year 1 Semester 1	
MXB102	Abstract Mathematical Reasoning
Maths Core Options Unit**	
OR	
MXB101	Probability and Stochastic Modelling 1
OR	
MXB103	Introductory Computational Mathematics
Year 1 Semester 2	
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
(PLEASE NOTE: you will need to nominate your Maths major in your Study Plan to select MXB105 and MXB106. These units are common to all three Maths majors)	
Year 2 Semester 1	
MXB101	Probability and Stochastic Modelling 1
OR Maths Core Options Unit** (select if completed MXB101 in first year)	
MXB103	Introductory Computational Mathematics
OR Maths Core Options Unit** (select if completed MXB103 in first year)	
Year 2 Semester 2	
MXB107	Introduction to Statistical Modelling
Maths Core Options Unit**	
Year 3 Semester 1	
MXB201	Advanced Linear Algebra
MXB221	Ordinary Differential Equations
Year 3 Semester 2	
MXB202	Advanced Calculus
MXB222	Computational Linear Algebra
Year 4 Semester 1	
MXB321	Applied Transport Theory
MXB322	Partial Differential Equations
Year 4 Semester 2	
MXB323	Dynamical Systems
MXB324	Computational Fluid Dynamics
NOTE:	
** Only TWO (2) Option units may be taken in these 4 unit-slots.	

Semesters

- Decision Science Major unit set:
- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2
- NOTE:

Code	Title
Decision Science Major unit set:	
Year 1 Semester 1	
MXB102	Abstract Mathematical Reasoning
Maths Core Options Unit**	
OR	
MXB101	Probability and Stochastic Modelling 1
OR	
MXB103	Introductory Computational Mathematics
Year 1 Semester 2	
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
(PLEASE NOTE: you will need to nominate your Maths major in your Study Plan to select MXB105 and MXB106. These units are common to all three Maths majors)	
Year 2 Semester 1	
MXB101	Probability and Stochastic Modelling 1
OR Maths Core Options Unit** (select if completed MXB101 in first year)	
MXB103	Introductory Computational Mathematics
OR Maths Core Options Unit** (select if completed MXB103 in first year)	
Year 2 Semester 2	
MXB107	Introduction to Statistical Modelling
Maths Core Options Unit	
Year 3 Semester 1	
MXB201	Advanced Linear Algebra
MXB232	Introduction to Operations Research
Year 3 Semester 2	
MXB202	Advanced Calculus
MXB241	Probability and Stochastic Modelling 2
OR	
CAB201	Programming Principles
Year 4 Semester 1	
MXB332	Optimisation Modelling

MXB341	Statistical Inference
OR	
MXB351	Coding Theory and Graph Theory
Year 4 Semester 2	
MXB334	Operations Research for Stochastic Processes
MXB335	Advanced Optimisation Modelling
NOTE:	
** Only TWO (2) Option units may be taken in these 4 unit-slots.	

Semesters

Code	Title
Statistical Science Major unit set:	
Year 1 Semester 1	
MXB102	Abstract Mathematical Reasoning
Maths Core Options Unit**	
OR	
MXB101	Probability and Stochastic Modelling 1
OR	
MXB103	Introductory Computational Mathematics
Year 1 Semester 2	
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
(PLEASE NOTE: you will need to nominate your Maths major in your Study Plan to select MXB105 and MXB106. These units are common to all three Maths majors)	
Year 2 Semester 1	
MXB101	Probability and Stochastic Modelling 1
OR Maths Core Options Unit** (select if completed MXB101 in first year)	
MXB103	Introductory Computational Mathematics
OR Maths Core Options Unit** (select if completed MXB103 in first year)	
Year 2 Semester 2	
MXB107	Introduction to Statistical Modelling
Maths Core Options Unit**	
Year 3 Semester 1	
MXB201	Advanced Linear Algebra
MXB242	Regression and Design
Year 3 Semester 2	
MXB202	Advanced Calculus
MXB241	Probability and Stochastic Modelling 2
Year 4 Semester 1	
MXB341	Statistical Inference
MXB342	Statistical Techniques
Year 4 Semester 2	
MXB343	Modelling Dependent Data
MXB344	Generalised Linear Models
NOTE:	
** Only TWO (2) Option units may be taken in these 4 unit-slots.	

Bachelor of Information Technology/Bachelor of Mathematics

Handbook

Year	2017
QUT code	SE30
CRICOS	059226F
Duration (full-time)	4 years
OP	6
Rank	89
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $28100 per year full-time (96 credit points)
Total credit points	384
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Mr Mike Roggenkamp (Information Technology), Associate Professor Tim Moroney (Mathematics); ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Dr Guido Zuccon (Computer Science); Dr Greg Timbrell (Information Systems); TBA (Applied and Computational Mathematics – Dr Qianqian Yang in SEM-1 2017 only); Associate Professor Paul Corry (Decision Science); and Dr Chris Drovandi (Statistical Science).

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Overview

Mathematics and information technology are interrelated disciplines. This double degree provides you with the knowledge and skills to develop solutions for complex problems that provide great benefits to society. In the first year you will build a foundation in mathematics and information technology and then select integrated strands combining units from the areas of applied mathematics, computational mathematics, operations research, statistics or financial mathematics with the combined information technology major from either Information Systems of Computer Science.

Career Outcomes

Mathematics underpins much of information technology, especially in the more advanced areas of development and analysis. As a graduate you may find employment as a technical support specialist, data visualisation specialist, operations research specialist, computational scientist, statistician (there is high demand in the insurance industry), or work in complex system and scientific modelling.

Professional Recognition

Graduates will be eligible for membership of the Mathematical Society of Australia, the Statistical Society of Australia and, depending on unit selection, the Australian Society for Operations Research. This course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

Domestic Course structure

The Bachelor of Mathematics component consists of:

- Six (6) core units (72 credit points - 48cp + 24cp core options)
- Ten (10) major core units (120 credit points).

The Bachelor of Information Technology component consists of:

- Six (6) core units (72 credit points - 48cp + 24cp core options)
- Ten (10) major core units (120 credit points).

International Course structure

The Mathematics Component consists of :

- Six (6) Core units (72 credit points - 48cp + 24cp Core options)

- Ten (10) Major Core units (120 credit points)

The Bachelor of Information Technology component consists of:

- Six (6) Core units (72 credit points - 48cp + 24cp Core options)

- Ten (10) Major Core units (120 credit points)

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title

Bachelor of Information Technology/Bachelor of Mathematics

Year 1, Semester 1	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
Year 1, Semester 2	
IFB104	Building IT Systems
IFB130	Database Management
Year 2, Semester 1	
IFB103	Designing for IT
IT Core Unit Option	
Year 2, Semester 2	
CAB201	Programming Principles
CAB202	Microprocessors and Digital Systems
Year 3, Semester 1	
CAB203	Discrete Structures
CAB302	Software Development
Year 3, Semester 2	
CAB303	Networks
IFB299	IT Project Design and Development
Year 4, Semester 1	
CAB301	Algorithms and Complexity
IFB398	Capstone Project (Phase 1)
Year 4, Semester 2	
IFB399	Capstone Project (Phase 2)
Select one of:	
CAB401	High Performance and Parallel Computing
CAB402	Programming Paradigms
CAB403	Systems Programming

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
Year 1, Semester 2	
IFB104	Building IT Systems
IFB130	Database Management
Year 2, Semester 1	
IFB103	Designing for IT
IT Core Unit Option	
Year 2, Semester 2	
IAB201	Modelling Information Systems
IAB202	Business of Information Technology
Year 3, Semester 1	
IAB203	Business Process Modelling
IAB204	Business Analysis
Year 3, Semester 2	
IAB205	Corporate Systems
IFB299	IT Project Design and Development
Year 4, Semester 1	
IFB398	Capstone Project (Phase 1)
Select one of:	
IAB302	Information Systems Consulting
IAB303	Business Intelligence
IAB304	Project Management
Year 4, Semester 2	
IAB301	Enterprise Architecture
IFB399	Capstone Project (Phase 2)

Semesters

- Applied and Computational Mathematics Major unit set:
- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2
- NOTE:

Code	Title
Applied and Computational Mathematics Major unit set:	
Year 1 Semester 1	
MXB102	Abstract Mathematical Reasoning
Maths Core Options Unit**	
OR	
MXB101	Probability and Stochastic Modelling 1
OR	
MXB103	Introductory Computational Mathematics
Year 1 Semester 2	
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
(PLEASE NOTE: you will need to nominate your Maths major in your Study Plan to select MXB105 and MXB106. These units are common to all three Maths majors)	
Year 2 Semester 1	
MXB101	Probability and Stochastic Modelling 1
OR Maths Core Options Unit** (select if completed MXB101 in first year)	
MXB103	Introductory Computational Mathematics
OR Maths Core Options Unit** (select if completed MXB103 in first year)	
Year 2 Semester 2	
MXB107	Introduction to Statistical Modelling
Maths Core Options Unit**	
Year 3 Semester 1	
MXB201	Advanced Linear Algebra
MXB221	Ordinary Differential Equations
Year 3 Semester 2	
MXB202	Advanced Calculus
MXB222	Computational Linear Algebra
Year 4 Semester 1	
MXB321	Applied Transport Theory
MXB322	Partial Differential Equations
Year 4 Semester 2	
MXB323	Dynamical Systems
MXB324	Computational Fluid Dynamics
NOTE:	
** Only TWO (2) Option units may be taken in these 4 unit-slots.	

Semesters

- Decision Science Major unit set:
- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2
- NOTE:

Code	Title
Decision Science Major unit set:	

Bachelor of Information Technology/Bachelor of Mathematics

Year 1 Semester 1	
MXB102	Abstract Mathematical Reasoning
Maths Core Options Unit**	
OR	
MXB101	Probability and Stochastic Modelling 1
OR	
MXB103	Introductory Computational Mathematics
Year 1 Semester 2	
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
(PLEASE NOTE: you will need to nominate your Maths major in your Study Plan to select MXB105 and MXB106. These units are common to all three Maths majors)	
Year 2 Semester 1	
MXB101	Probability and Stochastic Modelling 1
OR Maths Core Options Unit** (select if completed MXB101 in first year)	
MXB103	Introductory Computational Mathematics
OR Maths Core Options Unit** (select if completed MXB103 in first year)	
Year 2 Semester 2	
MXB107	Introduction to Statistical Modelling
Maths Core Options Unit	
Year 3 Semester 1	
MXB201	Advanced Linear Algebra
MXB232	Introduction to Operations Research
Year 3 Semester 2	
MXB202	Advanced Calculus
MXB241	Probability and Stochastic Modelling 2
OR	
CAB201	Programming Principles
Year 4 Semester 1	
MXB332	Optimisation Modelling
MXB341	Statistical Inference
OR	
MXB351	Coding Theory and Graph Theory
Year 4 Semester 2	
MXB334	Operations Research for Stochastic Processes
MXB335	Advanced Optimisation Modelling
NOTE:	
** Only TWO (2) Option units may be taken in these 4 unit-slots.	

Semesters

Code	Title
Statistical Science Major unit set:	
Year 1 Semester 1	
MXB102	Abstract Mathematical Reasoning
Maths Core Options Unit**	
OR	
MXB101	Probability and Stochastic Modelling 1
OR	
MXB103	Introductory Computational Mathematics
Year 1 Semester 2	
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
(PLEASE NOTE: you will need to nominate your Maths major in your Study Plan to select MXB105 and MXB106. These units are common to all three Maths majors)	
Year 2 Semester 1	
MXB101	Probability and Stochastic Modelling 1
OR Maths Core Options Unit** (select if completed MXB101 in first year)	
MXB103	Introductory Computational Mathematics
OR Maths Core Options Unit** (select if completed MXB103 in first year)	
Year 2 Semester 2	
MXB107	Introduction to Statistical Modelling
Maths Core Options Unit**	
Year 3 Semester 1	
MXB201	Advanced Linear Algebra
MXB242	Regression and Design
Year 3 Semester 2	
MXB202	Advanced Calculus
MXB241	Probability and Stochastic Modelling 2
Year 4 Semester 1	
MXB341	Statistical Inference
MXB342	Statistical Techniques
Year 4 Semester 2	
MXB343	Modelling Dependent Data
MXB344	Generalised Linear Models
NOTE:	
** Only TWO (2) Option units may be taken in these 4 unit-slots.	

Bachelor of Engineering (Honours)/Bachelor of Mathematics

Handbook

Year	2017
QUT code	SE40
CRICOS	084922G
Duration (full-time)	5 years
OP	6
Rank	89
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $30200 per year full-time (96 credit points)
Total credit points	480
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - (Engineering major); Associate Professor Tim Moroney (Mathematics major); email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Dr Brian Lee (Civil); Dr Wayne Kelly (Computer & Software Systems); Dr Jacob Coetzee (Electrical); Ass. Professor Felipe Gonzalez (Electrical & Aerospace); Professor Ted Steinberg (Mechanical); Ass. Professor Jason Ford (Mechatronics); Dr Devakar Epari (Medical); Ass. Professor Robert Speight (Process); TBA (Applied and Computational Mathematics – Dr Qianqian Yang in SEM-1 2017 only); Associate Professor Paul Corry (Decision Science); and Dr Chris Drovandi (Statistical Science)

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended Study: Chemistry, Mathematics C, Physics.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended Study: Chemistry, Mathematics C, Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Domestic Course structure

To graduate with a Bachelor of Engineering (Honours) in SE40, students are required to complete 288 credit points of course units, as outlined below:

- First year: four (4) core units 48cp + two (2) discipline foundation units 24cp + two (2) option units 24cp (96 credit points)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

International Course structure

To graduate with a Bachelor of Engineering (Honours) in SE40, students are required to complete 288 credit points of course units, as outlined below:

- First year: four (4) core units 48cp + two (2) discipline foundation units 24cp + two (2) option units 24cp (96 credit points)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x Advanced major units 60cp.

Sample Structure

Semesters

- Applied and Computational Mathematics Major unit set:
- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2
- NOTE:

Code	Title
Applied and Computational Mathematics Major unit set:	
Year 1 Semester 1	
MXB102	Abstract Mathematical Reasoning
Maths Core Options Unit**	
OR	
MXB101	Probability and Stochastic Modelling 1
OR	
MXB103	Introductory Computational Mathematics
Year 1 Semester 2	
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
(PLEASE NOTE: you will need to nominate your Maths major in your Study Plan to select MXB105 and MXB106. These units are common to all three Maths majors)	
Year 2 Semester 1	
MXB101	Probability and Stochastic Modelling 1
OR Maths Core Options Unit** (select if completed MXB101 in first year)	
MXB103	Introductory Computational Mathematics
OR Maths Core Options Unit** (select if	

completed MXB103 in first year)	
Year 2 Semester 2	
MXB107	Introduction to Statistical Modelling
Maths Core Options Unit**	
Year 3 Semester 1	
MXB201	Advanced Linear Algebra
MXB221	Ordinary Differential Equations
Year 3 Semester 2	
MXB202	Advanced Calculus
MXB222	Computational Linear Algebra
Year 4 Semester 1	
MXB321	Applied Transport Theory
MXB322	Partial Differential Equations
Year 4 Semester 2	
MXB323	Dynamical Systems
MXB324	Computational Fluid Dynamics
NOTE:	
** Only TWO (2) Option units may be taken in these 4 unit-slots.	

Semesters

- Decision Science Major unit set:
- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2
- NOTE:

Code	Title
Decision Science Major unit set:	
Year 1 Semester 1	
MXB102	Abstract Mathematical Reasoning
Maths Core Options Unit**	
OR	
MXB101	Probability and Stochastic Modelling 1
OR	
MXB103	Introductory Computational Mathematics
Year 1 Semester 2	
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
(PLEASE NOTE: you will need to nominate your Maths major in your Study Plan to select MXB105 and MXB106. These units are common to all three Maths majors)	
Year 2 Semester 1	
MXB101	Probability and Stochastic Modelling 1
OR Maths Core Options Unit** (select if completed MXB101 in first year)	
MXB103	Introductory Computational Mathematics
OR Maths Core Options Unit** (select if completed MXB103 in first year)	
Year 2 Semester 2	
MXB107	Introduction to Statistical Modelling
Maths Core Options Unit	
Year 3 Semester 1	
MXB201	Advanced Linear Algebra
MXB232	Introduction to Operations Research
Year 3 Semester 2	
MXB202	Advanced Calculus
MXB241	Probability and Stochastic Modelling 2
OR	
CAB201	Programming Principles
Year 4 Semester 1	
MXB332	Optimisation Modelling
MXB341	Statistical Inference
OR	
MXB351	Coding Theory and Graph Theory
Year 4 Semester 2	
MXB334	Operations Research for Stochastic Processes
MXB335	Advanced Optimisation Modelling
NOTE:	
** Only TWO (2) Option units may be taken in these 4 unit-slots.	

Semesters

- Statistical Science Major unit set:
- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2
- NOTE:

Code	Title
Statistical Science Major unit set:	
Year 1 Semester 1	
MXB102	Abstract Mathematical Reasoning
Maths Core Options Unit**	
OR	
MXB101	Probability and Stochastic Modelling 1
OR	
MXB103	Introductory Computational Mathematics
Year 1 Semester 2	
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
(PLEASE NOTE: you will need to nominate your Maths major in your Study Plan to select MXB105 and MXB106. These units are common to all three Maths majors)	
Year 2 Semester 1	
MXB101	Probability and Stochastic Modelling 1
OR Maths Core Options Unit** (select if completed MXB101 in first year)	
MXB103	Introductory Computational Mathematics
OR Maths Core Options Unit** (select if completed MXB103 in first year)	
Year 2 Semester 2	
MXB107	Introduction to Statistical Modelling
Maths Core Options Unit**	
Year 3 Semester 1	
MXB201	Advanced Linear Algebra
MXB242	Regression and Design
Year 3 Semester 2	
MXB202	Advanced Calculus
MXB241	Probability and Stochastic Modelling 2
Year 4 Semester 1	
MXB341	Statistical Inference
MXB342	Statistical Techniques
Year 4 Semester 2	
MXB343	Modelling Dependent Data
MXB344	Generalised Linear Models
NOTE:	
** Only TWO (2) Option units may be taken in these 4 unit-slots.	

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4, Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems

Bachelor of Engineering (Honours)/Bachelor of Mathematics

MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
Foundation Unit Option	
EGB123	Civil Engineering Systems
Year 3 - Semester 1	
EGB270	Civil Engineering Materials
EGB272	Traffic and Transport Engineering
Year 3 - Semester 2	
EGB273	Principles of Construction
EGB373	Geotechnical Engineering
Year 4, Semester 1	
EGB275	Structural Mechanics
EGB371	Engineering Hydraulics
Year 4 - Semester 2	
EGB376	Steel Design
EGH471	Advanced Water Engineering
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
EGB375	Design of Concrete Structures
EGH473	Advanced Geotechnical Engineering
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH472	Advanced Highway and Pavement Engineering
EGH475	Advanced Concrete Structures
EGH479	Advances in Civil Engineering Practice

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Intermediate Software Option Unit
- Advanced Electrical Option Unit
- Advanced Software Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB242	Signal Analysis
CAB202	Microprocessors and Digital Systems
Year 3 - Semester 2	
CAB201	Programming Principles
Computer Science students must take CAB201 in your Computer and Software Systems major. Please contact Science and Engineering Faculty to have 12 credit points added to your Computer Science Unit Options List.	
Intermediate Electrical Option Unit	
Year 4 - Semester 1	
EGB240	Electronic Design
Intermediate Software Option Unit	
For students with Computer Science Major: CAB301 and CAB302 are core to the Computer Science Major. Please contact Science and Engineering Faculty to be provided a list of additional units you can select from.	
Year 4 - Semester 2	
CAB403	Systems Programming
Intermediate Electrical or Software Option Unit	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
Advanced Electrical or Software Option Unit	
EGH400-1	Research Project 1
EGH456	Embedded Systems
Year 5 - Semester 2	
EGH400-2	Research Project 2
Advanced Software Option Unit	
Advanced Electrical Option Unit	
EGH455	Advanced Systems Design
Intermediate Electrical Option Unit	
EGB348	Electronics
EGB345	Control and Dynamic Systems
EGB342	Telecommunications and Signal Processing
Intermediate Software Option Unit	
CAB302	Software Development
CAB301	Algorithms and Complexity
Advanced Electrical Option Unit	
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics
Advanced Software Option Unit	
CAB432	Cloud Computing
CAB401	High Performance and Parallel Computing

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Advanced Electrical Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	

Bachelor of Engineering (Honours)/Bachelor of Mathematics

EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
CAB202	Microprocessors and Digital Systems
Year 3 - Semester 1	
EGB240	Electronic Design
EGB241	Electromagnetics and Machines
Year 3 - Semester 2	
EGB242	Signal Analysis
Intermediate Electrical Option Unit (1)	
Year 4 - Semester 1	
EGB340	Design and Practice
Foundation Unit Option	
Year 4 - Semester 2	
Intermediate Electrical Option Unit (2)	
Intermediate Electrical Option Unit (3)	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
Advanced Electrical Option Unit (1)	
Advanced Electrical Option Unit (2)	
Year 5 - Semester 2	
EGH400-2	Research Project 2
Advanced Electrical Option Unit (3)	
Advanced Electrical Option Unit (4)	
Advanced Electrical Option Unit (5)	
Intermediate Electrical Option Unit	
EGB341	Energy Supply and Delivery
EGB342	Telecommunications and Signal Processing
EGB345	Control and Dynamic Systems
EGB348	Electronics
Advanced Electrical Option Unit	
EGH440	Power Systems Analysis
EGH441	Power System Modelling
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Advanced Electrical Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
CAB202	Microprocessors and Digital Systems
EGB241	Electromagnetics and Machines
Year 3 - Semester 2	
EGB242	Signal Analysis
Intermediate Electrical Option Unit (1)	
Year 4 - Semester 1	
EGB340	Design and Practice
EGB240	Electronic Design
Year 4 - Semester 2	
Intermediate Electrical Option Unit (2)	
Intermediate Electrical Option Unit (3)	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
Advanced Electrical Option Unit (1)	
Advanced Electrical Option Unit (2)	
Year 5 - Semester 2	
EGH400-2	Research Project 2
Advanced Electrical Option Unit (3)	
Advanced Electrical Option Unit (4)	
Advanced Electrical Option Unit (5)	
Intermediate Electrical Option Unit	
EGB341	Energy Supply and Delivery
EGB342	Telecommunications and Signal Processing
EGB345	Control and Dynamic Systems
EGB348	Electronics
Advanced Electrical Option Unit	
EGH440	Power Systems Analysis
EGH441	Power System Modelling
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical and Aerospace Option Units
- Advanced Electrical and Aerospace Option Units

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
MXB161	Computational Explorations
Year 1 - Semester 2	

Bachelor of Engineering (Honours)/Bachelor of Mathematics

EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
CAB202	Microprocessors and Digital Systems
EGB240	Electronic Design
Year 3 - Semester 2	
EGB242	Signal Analysis
Intermediate Electrical Option Unit	
Year 4 - Semester 1	
EGB349	Systems Engineering and Design Project
EGB243	Aircraft Systems and Flight
Year 4 - Semester 2	
EGB346	Unmanned Aircraft Systems
EGB345	Control and Dynamic Systems
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH446	Autonomous Systems
EGH400-1	Research Project 1
Advanced Electrical Option Unit	
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH445	Modern Control
EGH450	Advanced Unmanned Aircraft Systems
Advanced Electrical Option Unit	
Intermediate Electrical and Aerospace Option Units	
CAB403	Systems Programming
EGB342	Telecommunications and Signal Processing
EGB348	Electronics
Advanced Electrical and Aerospace Option Units	
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH448	Power Electronics
EGH449	Advanced Electronics
EGH455	Advanced Systems Design
EGH456	Embedded Systems

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB210	Fundamentals of Mechanical Design
EGB214	Materials and Manufacturing
Year 3 - Semester 2	
EGB211	Dynamics
EGB314	Strength of Materials
Year 4 - Semester 1	
EGB321	Dynamics of Machines
EGB323	Fluid Mechanics
Year 4 - Semester 2	
EGB322	Thermodynamics
EGH404	Research in Engineering Practice
Year 5 - Semester 1	
EGB316	Design of Machine Elements
EGH400-1	Research Project 1
EGH414	Stress Analysis
EGH421	Vibration and Control
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH420	Mechanical Systems Design
EGH422	Advanced Thermodynamics
EGH423	Fluids Dynamics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Intermediate Mechanical Option Unit
- Advanced Electrical Option Unit
- Advanced Mechanical Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB242	Signal Analysis
EGB211	Dynamics
Year 3 - Semester 2	
EGB345	Control and Dynamic Systems
CAB202	Microprocessors and Digital Systems

Bachelor of Engineering (Honours)/Bachelor of Mathematics

Year 4 - Semester 1	
EGB220	Mechatronics Design 1
EGB321	Dynamics of Machines
Year 4 - Semester 2	
EGB320	Mechatronics Design 2
Intermediate Electrical Option Unit	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
EGH419	Mechatronics Design 3
EGH446	Autonomous Systems
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH445	Modern Control
EGH413	Advanced Dynamics
Advanced Electrical Option Unit	
Intermediate Electrical Option Unit	
CAB403	Systems Programming
EGB348	Electronics
Intermediate Mechanical Option Unit	
EGB321	Dynamics of Machines
EGB323	Fluid Mechanics
Advanced Electrical Option Unit	
EGH456	Embedded Systems
EGH455	Advanced Systems Design
EGH448	Power Electronics
EGH449	Advanced Electronics
Advanced Mechanical Option Unit	
EGH413	Advanced Dynamics
EGH423	Fluids Dynamics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB210	Fundamentals of Mechanical Design
LSB131	Anatomy
Year 3 - Semester 2	
EGB211	Dynamics
LSB231	Physiology
Year 4 - Semester 1	
EGB214	Materials and Manufacturing
EGB323	Fluid Mechanics
Year 4 - Semester 2	
EGB314	Strength of Materials
EGH404	Research in Engineering Practice
Year 5 - Semester 1	
EGB319	BioDesign
EGH400-1	Research Project 1
EGH414	Stress Analysis
EGH418	Biomechanics
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH424	Biofluids
EGH435	Modelling and Simulation for Medical Engineers
EGH438	Biomaterials

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
CVB220	Process Principles
EGB363	Safety and Environmental Management
Year 3 - Semester 2	
CVB101	General Chemistry
EGB322	Thermodynamics
Year 4 - Semester 1	
EGB260	Operations Management and Process Economics
EGB323	Fluid Mechanics
Year 4 - Semester 2	
EGH404	Research in Engineering Practice
EGH423	Fluids Dynamics
Year 5 - Semester 1	
EGB361	Minerals and Minerals Processing
EGH400-1	Research Project 1
Plant and Process Design	
Unit Operation	
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH411	Industrial Chemistry
EGH422	Advanced Thermodynamics
EGH460	Advanced Process Modelling

Bachelor of Science/Bachelor of Information Technology

Handbook

Year	2017
QUT code	SE50
CRICOS	080489G
Duration (full-time)	4 years
Duration (part-time domestic)	8 years
OP	11
Rank	76
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $30600 per year full-time (96 credit points)
Total credit points	384
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Information Technology Coordinator Mr Mike Roggenkamp; Science Coordinator Dr Graham Johnson; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Dr Marion Bateson (Biological Science); Dr James Blinco (Chemistry - previously Dr Sara Couperthwaite in SEM-1 2017); Dr Luke Nothdurft (Earth Science); Dr Andrew Baker (Environmental Science); Prof Nunzio Motto (Physics - previously Dr Jamie Trapp in SEM-1 2017); Professor Colin Fidge (Computer Science); and IT Course Coordinator (Information Systems).

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended Study: At least one of biology, chemistry, earth science, maths c or physics.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended Study: At least one of biology, chemistry, earth science, maths c or physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Overview

This double degree prepares you for an increasing range of careers that involve the application of information technology to science. It gives you the ability to use creative as well as analytical methods to solve scientific problems. Studying this double degree allows you to develop the technical skills required for your relevant field of study in science.

The science component of the course offers you the choice of majoring in Biological Sciences, Physics, Chemistry, Environmental Science or Earth Sciences. Theoretical aspects are balanced by strong practical components in this science and information technology double degree.

The Information Technology component of this degree offers a choice of majors in Information Systems or Computer Science.

Professional Recognition

This course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

Career Outcomes

Graduates may find roles where they can use their information technology skills within the science discipline. Areas include sensor networks, complex system and scientific modelling, and science. As a graduate, you can expect to work in roles such as a scientific modeller, engineering software developer, scientific programmer, and computational scientist.

Domestic Course structure

Students are required to complete 384 credit points comprised of 192 credit points from the Bachelor of Science program and 192 credit points from the Bachelor of Information Technology program.

Science component:

- 6 Science Core units (72 credit points), includes 2 units (24 credit points) of Option Units selected from an approved list.
- 10 Major Core units (120 credit points)

Information Technology component:

- 6 Information Technology Core units (72 credit points), includes 2 units (24 credit points) of Option Units** selected from an approved list.
- 10 Major Core units (120 credit points)

***Options List* - comprises a range of units from which you choose to undertake two (2). You are able to undertake these options in any semester. The options include introductory units from a wide variety of disciplines offered at QUT.

International Course structure

Bachelor of Science/Bachelor of Information Technology

Students are required to complete 384 credit points comprised of 192 credit points from the Bachelor of Science program and 192 credit points from the Bachelor of Information Technology program.

Science component:

- 6 Science Core units (72 credit points), includes 2 units (24 credit points) of Option Units selected from an approved list.
- 10 Major Core units (120 credit points)

Information Technology component:

- 6 Information Technology Core units (72 credit points), includes 2 units (24 credit points) of Option Units** selected from an approved list.
- 10 Major Core units (120 credit points)

***Options List* - comprises a range of units from which you choose to undertake two (2). You are able to undertake these options in any semester. The options include introductory units from a wide variety of disciplines offered at QUT.

Sample Structure

Semesters

- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 2	
IFB102	Computer Technology Fundamentals
IFB103	Designing for IT
IFB104	Building IT Systems
IFB130	Database Management
Year 2, Semester 1	
IFB101	Impact of IT
CAB201	Programming Principles
Year 2, Semester 2	
CAB202	Microprocessors and Digital Systems
IT Core Option Unit	
Year 3, Semester 1	
CAB203	Discrete Structures
CAB302	Software Development
Year 3, Semester 2	
IFB299	IT Project Design and Development
CAB303	Networks
Year 4, Semester 1	
CAB301	Algorithms and Complexity
IFB398	Capstone Project (Phase 1)
Year 4, Semester 2	
IFB399	Capstone Project (Phase 2)
Select one of:	
CAB401	High Performance and Parallel Computing
CAB402	Programming Paradigms
CAB403	Systems Programming

Semesters

- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 2	
IFB102	Computer Technology Fundamentals
IFB103	Designing for IT
IFB104	Building IT Systems
IFB130	Database Management
Year 2, Semester 1	
IFB101	Impact of IT
IAB201	Modelling Information Systems
Year 2, Semester 2	
IAB202	Business of Information Technology
IT Core Option Unit	
Year 3, Semester 1	
IAB203	Business Process Modelling
IAB204	Business Analysis
Year 3, Semester 2	
IFB299	IT Project Design and Development
IAB205	Corporate Systems
Year 4, Semester 1	
IFB398	Capstone Project (Phase 1)
Select one of:	
IAB302	Information Systems Consulting
IAB303	Business Intelligence
IAB304	Project Management
Year 4, Semester 2	
IFB399	Capstone Project (Phase 2)
IAB301	Enterprise Architecture

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 2, Semester 1	
Science Core Option Unit	
Science Core Option Unit	
Year 2, Semester 2	
BVB101	Foundations of Biology
BVB102	Evolution
Year 3, Semester 1	
BVB201	Biological Processes
BVB202	Experimental Design and Quantitative Methods
Year 3, Semester 2	
BVB203	Plant Biology
BVB204	Ecology
Year 4, Semester 1	
BVB301	Animal Biology
BVB305	Microbiology and the Environment
Year 4, Semester 2	
BVB302	Applied Biology
BVB304	Integrative Biology

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 2, Semester 1	
Science Core Option Unit	
Science Core Option Unit	

Year 2, Semester 2	
CVB101	General Chemistry
CVB102	Chemical Structure and Reactivity
Year 3, Semester 1	
CVB201	Inorganic Chemistry
CVB202	Analytical Chemistry
Year 3, Semester 2	
CVB203	Physical Chemistry
CVB204	Organic Structure and Mechanisms
Year 4, Semester 1	
CVB301	Organic Chemistry: Strategies for Synthesis
CVB302	Applied Physical Chemistry
Year 4, Semester 2	
CVB303	Coordination Chemistry
CVB304	Chemistry Research Project

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 2, Semester 1	
Science Core Option Unit	
Science Core Option Unit	
Year 2, Semester 2	
ERB101	Earth Systems
ERB102	Evolving Earth
Year 3, Semester 1	
ERB201	Destructive Earth: Natural Hazards
ERB202	Marine Geoscience
Year 3, Semester 2	
ERB203	Sedimentary Geology and Stratigraphy
ERB204	Deforming Earth: Fundamentals of Structural Geology
Year 4, Semester 1	
ERB301	Chemical Earth
ERB302	Applied Geophysics
Year 4, Semester 2	
ERB303	Energy Resources and Basin Analysis
ERB304	Dynamic Earth: Plate Tectonics

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 2, Semester 1	
Science Core Option Unit	
Science Core Option Unit	
Year 2, Semester 2	
ERB101	Earth Systems
EVB102	Ecosystems and the Environment
Year 3, Semester 1	
BVB202	Experimental Design and Quantitative Methods
EVB201	Global Environmental Issues
Year 3, Semester 2	
BVB204	Ecology
[EVB301 replaced by BVB204 in 2017]	
EVB203	Geospatial Information Science
Year 4, Semester 1	
EVB302	Environmental Pollution
EVB312	Soils and the Environment
[EVB212 replaced by EVB312 in 2017]	
Year 4, Semester 2	
ERB310	Groundwater Systems
[ENB380 replaced by ERB310 in 2017]	
EVB304	Case Studies in Environmental Science

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 2, Semester 1	
Science Core Option Unit	
Science Core Option Unit	
Year 2, Semester 2	
PVB101	Physics of the Very Large
PVB102	Physics of the Very Small
Year 3, Semester 1	
PVB200	Computational and Mathematical Physics
PVB203	Experimental Physics
Year 3, Semester 2	
PVB202	Mathematical Methods in Physics
PVB204	Electromagnetism
Year 4, Semester 1	
PVB301	Materials and Thermal Physics
PVB302	Classical and Quantum Physics
Year 4, Semester 2	
PVB303	Nuclear and Particle Physics
PVB304	Physics Research

Bachelor of Engineering (Honours)/Bachelor of Information Technology

Handbook

Year	2017
QUT code	SE60
CRICOS	084923F
Duration (full-time)	5 years
OP	9
Rank	81
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $30300 per year full-time (96 credit points)
Total credit points	480
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - (Engineering); Mr Mike Roggenkamp (Information Technology); email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Dr Brian Lee (Civil); Dr Wayne Kelly (Computer & Software Systems); Dr Jacob Coetzee (Electrical); Ass. Professor Felipe Gonzalez (Electrical & Aerospace); Professor Ted Steinberg (Mechanical); Ass. Professor Jason Ford (Mechatronics); Dr Devakar Epari (Medical); Ass. Professor Robert Speight (Process); Professor Colin Fidge (Computer Science); and IT Course Coordinator (Information Systems).

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Domestic Course structure

To graduate with a Bachelor of Engineering (Honours) in SE60, students are required to complete 288 credit points of course units, as outlined below:

- First year: four (4) core units 48cp + two (2) discipline foundation units 24cp + two (2) option units 24cp (96 credit points)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

International Course structure

To graduate with a Bachelor of Engineering (Honours) in SE60, students are required to complete 288 credit points of course units, as outlined below:

- First year: four (4) core units 48cp + two (2) discipline foundation units 24cp + two (2) option units 24cp (96 credit points)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- NOTE:

Code	Title
Year 1, Semester 1	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
Year 1, Semester 2	
IFB130	Database Management
IFB104	Building IT Systems
Year 2, Semester 1	
IFB103	Designing for IT
IT Core Unit Option	
Year 2, Semester 2	
CAB201	Programming Principles
CAB202	Microprocessors and Digital Systems
OR Computer Software, Electrical, Electrical & Aerospace, Mechatronics Majors replace CAB202 with Computer Science Major Unit Option	
Year 3, Semester 1	
CAB203	Discrete Structures
CAB302	Software Development
Year 3, Semester 2	
CAB303	Networks
IFB299	IT Project Design and Development
Year 4, Semester 1	
CAB301	Algorithms and Complexity
IFB398	Capstone Project (Phase 1)
Year 4, Semester 2	
IFB399	Capstone Project (Phase 2)
Select one of:	

Bachelor of Engineering (Honours)/Bachelor of Information Technology

CAB320	Artificial Intelligence
CAB340	Cryptography
CAB401	High Performance and Parallel Computing
CAB402	Programming Paradigms
CAB403	Systems Programming
CAB430	Data and Information Integration
CAB432	Cloud Computing
CAB440	Network and Systems Administration
NOTE:	
CAB202 is CORE unless your Engineering major is in Computer & Software Systems, Electrical, Electrical & Aerospace or Mechatronics in which you will complete CAB202 in your Engineering component.	
CAB398 and CAB399 are replaced by IFB398 and IFB398 from 2017.	

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
Year 1, Semester 2	
IFB104	Building IT Systems
IFB130	Database Management
Year 2, Semester 1	
IFB103	Designing for IT
IT Core Unit Option	
Year 2, Semester 2	
IAB201	Modelling Information Systems
IAB202	Business of Information Technology
Year 3, Semester 1	
IAB203	Business Process Modelling
IAB204	Business Analysis
Year 3, Semester 2	
IAB205	Corporate Systems
IFB299	IT Project Design and Development
Year 4, Semester 1	
IFB398	Capstone Project (Phase 1)
Select one of:	
IAB302	Information Systems Consulting
IAB303	Business Intelligence
IAB304	Project Management
Year 4, Semester 2	
IAB301	Enterprise Architecture
IFB399	Capstone Project (Phase 2)

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4, Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
Foundation Unit Option	
EGB123	Civil Engineering Systems
Year 3 - Semester 1	
EGB270	Civil Engineering Materials
EGB272	Traffic and Transport Engineering
Year 3 - Semester 2	
EGB273	Principles of Construction
EGB373	Geotechnical Engineering
Year 4, Semester 1	
EGB275	Structural Mechanics
EGB371	Engineering Hydraulics
Year 4 - Semester 2	
EGB376	Steel Design
EGH471	Advanced Water Engineering
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
EGB375	Design of Concrete Structures
EGH473	Advanced Geotechnical Engineering
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH472	Advanced Highway and Pavement Engineering
EGH475	Advanced Concrete Structures
EGH479	Advances in Civil Engineering Practice

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Intermediate Software Option Unit
- Advanced Electrical Option Unit
- Advanced Software Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering

Bachelor of Engineering (Honours)/Bachelor of Information Technology

Foundation Unit Option	
Year 3 - Semester 1	
EGB242	Signal Analysis
CAB202	Microprocessors and Digital Systems
Year 3 - Semester 2	
CAB201	Programming Principles
Computer Science students must take CAB201 in your Computer and Software Systems major. Please contact Science and Engineering Faculty to have 12 credit points added to your Computer Science Unit Options List.	
Intermediate Electrical Option Unit	
Year 4 - Semester 1	
EGB240	Electronic Design
Intermediate Software Option Unit	
For students with Computer Science Major: CAB301 and CAB302 are core to the Computer Science Major. Please contact Science and Engineering Faculty to be provided a list of additional units you can select from.	
Year 4 - Semester 2	
CAB403	Systems Programming
Intermediate Electrical or Software Option Unit	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
Advanced Electrical or Software Option Unit	
EGH400-1	Research Project 1
EGH456	Embedded Systems
Year 5 - Semester 2	
EGH400-2	Research Project 2
Advanced Software Option Unit	
Advanced Electrical Option Unit	
EGH455	Advanced Systems Design
Intermediate Electrical Option Unit	
EGB348	Electronics
EGB345	Control and Dynamic Systems
EGB342	Telecommunications and Signal Processing
Intermediate Software Option Unit	
CAB302	Software Development
CAB301	Algorithms and Complexity
Advanced Electrical Option Unit	
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics
Advanced Software Option Unit	
CAB432	Cloud Computing
CAB401	High Performance and Parallel Computing

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Advanced Electrical Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
CAB202	Microprocessors and Digital Systems
Year 3 - Semester 1	
EGB240	Electronic Design
EGB241	Electromagnetics and Machines
Year 3 - Semester 2	
EGB242	Signal Analysis
Intermediate Electrical Option Unit (1)	
Year 4 - Semester 1	
EGB340	Design and Practice
Foundation Unit Option	
Year 4 - Semester 2	
Intermediate Electrical Option Unit (2)	
Intermediate Electrical Option Unit (3)	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
Advanced Electrical Option Unit (1)	
Advanced Electrical Option Unit (2)	
Year 5 - Semester 2	
EGH400-2	Research Project 2
Advanced Electrical Option Unit (3)	
Advanced Electrical Option Unit (4)	
Advanced Electrical Option Unit (5)	
Intermediate Electrical Option Unit	
EGB341	Energy Supply and Delivery
EGB342	Telecommunications and Signal Processing
EGB345	Control and Dynamic Systems
EGB348	Electronics
Advanced Electrical Option Unit	
EGH440	Power Systems Analysis
EGH441	Power System Modelling
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Advanced Electrical Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering

Bachelor of Engineering (Honours)/Bachelor of Information Technology

	Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
CAB202	Microprocessors and Digital Systems
EGB241	Electromagnetics and Machines
Year 3 - Semester 2	
EGB242	Signal Analysis
Intermediate Electrical Option Unit (1)	
Year 4 - Semester 1	
EGB340	Design and Practice
EGB240	Electronic Design
Year 4 - Semester 2	
Intermediate Electrical Option Unit (2)	
Intermediate Electrical Option Unit (3)	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
Advanced Electrical Option Unit (1)	
Advanced Electrical Option Unit (2)	
Year 5 - Semester 2	
EGH400-2	Research Project 2
Advanced Electrical Option Unit (3)	
Advanced Electrical Option Unit (4)	
Advanced Electrical Option Unit (5)	
Intermediate Electrical Option Unit	
EGB341	Energy Supply and Delivery
EGB342	Telecommunications and Signal Processing
EGB345	Control and Dynamic Systems
EGB348	Electronics
Advanced Electrical Option Unit	
EGH440	Power Systems Analysis
EGH441	Power System Modelling
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical and Aerospace Option Units
- Advanced Electrical and Aerospace Option Units

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
CAB202	Microprocessors and Digital Systems
EGB240	Electronic Design
Year 3 - Semester 2	
EGB242	Signal Analysis
Intermediate Electrical Option Unit	
Year 4 - Semester 1	
EGB349	Systems Engineering and Design Project
EGB243	Aircraft Systems and Flight
Year 4 - Semester 2	
EGB346	Unmanned Aircraft Systems
EGB345	Control and Dynamic

	Systems
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH446	Autonomous Systems
EGH400-1	Research Project 1
Advanced Electrical Option Unit	
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH445	Modern Control
EGH450	Advanced Unmanned Aircraft Systems
Advanced Electrical Option Unit	
Intermediate Electrical and Aerospace Option Units	
CAB403	Systems Programming
EGB342	Telecommunications and Signal Processing
EGB348	Electronics
Advanced Electrical and Aerospace Option Units	
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH448	Power Electronics
EGH449	Advanced Electronics
EGH455	Advanced Systems Design
EGH456	Embedded Systems

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice

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MZB126	Engineering Computation
Year 2 - Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB210	Fundamentals of Mechanical Design
EGB214	Materials and Manufacturing
Year 3 - Semester 2	
EGB211	Dynamics
EGB314	Strength of Materials
Year 4 - Semester 1	
EGB321	Dynamics of Machines
EGB323	Fluid Mechanics
Year 4 - Semester 2	
EGB322	Thermodynamics
EGH404	Research in Engineering Practice
Year 5 - Semester 1	
EGB316	Design of Machine Elements
EGH400-1	Research Project 1
EGH414	Stress Analysis
EGH421	Vibration and Control
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH420	Mechanical Systems Design
EGH422	Advanced Thermodynamics
EGH423	Fluids Dynamics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Intermediate Mechanical Option Unit
- Advanced Electrical Option Unit
- Advanced Mechanical Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB242	Signal Analysis
EGB211	Dynamics
Year 3 - Semester 2	
EGB345	Control and Dynamic Systems
CAB202	Microprocessors and Digital Systems
Year 4 - Semester 1	
EGB220	Mechatronics Design 1
EGB321	Dynamics of Machines
Year 4 - Semester 2	
EGB320	Mechatronics Design 2
Intermediate Electrical Option Unit	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
EGH419	Mechatronics Design 3
EGH446	Autonomous Systems
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH445	Modern Control
EGH413	Advanced Dynamics
Advanced Electrical Option Unit	
Intermediate Electrical Option Unit	
CAB403	Systems Programming
EGB348	Electronics
Intermediate Mechanical Option Unit	
EGB321	Dynamics of Machines
EGB323	Fluid Mechanics
Advanced Electrical Option Unit	
EGH456	Embedded Systems
EGH455	Advanced Systems Design
EGH448	Power Electronics
EGH449	Advanced Electronics
Advanced Mechanical Option Unit	
EGH413	Advanced Dynamics
EGH423	Fluids Dynamics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB210	Fundamentals of Mechanical Design
LSB131	Anatomy
Year 3 - Semester 2	
EGB211	Dynamics
LSB231	Physiology
Year 4 - Semester 1	
EGB214	Materials and Manufacturing
EGB323	Fluid Mechanics
Year 4 - Semester 2	
EGB314	Strength of Materials
EGH404	Research in Engineering Practice
Year 5 - Semester 1	
EGB319	BioDesign

EGH400-1	Research Project 1
EGH414	Stress Analysis
EGH418	Biomechanics
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH424	Biofluids
EGH435	Modelling and Simulation for Medical Engineers
EGH438	Biomaterials

Semesters

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
CVB220	Process Principles
EGB363	Safety and Environmental Management
Year 3 - Semester 2	
CVB101	General Chemistry
EGB322	Thermodynamics
Year 4 - Semester 1	
EGB260	Operations Management and Process Economics
EGB323	Fluid Mechanics
Year 4 - Semester 2	
EGH404	Research in Engineering Practice
EGH423	Fluids Dynamics
Year 5 - Semester 1	
EGB361	Minerals and Minerals Processing
EGH400-1	Research Project 1
Plant and Process Design	
Unit Operation	
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH411	Industrial Chemistry
EGH422	Advanced Thermodynamics
EGH460	Advanced Process Modelling

Bachelor of Games and Interactive Environments/Bachelor of Mathematics

Handbook

Year	2017
QUT code	SE70
CRICOS	092653A
Duration (full-time)	4 years
OP	6
Rank	89
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9900 per year full-time (96 credit points)
International fee (indicative)	2017: $27900 per year full-time (96 credit points)
Total credit points	384
Credit points full-time sem.	48
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Ross Brown (Games and Interactive Environments); Associate Professor Tim Moroney (Mathematics); email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	TBA (Applied and Computational Mathematics – Dr Qianqian Yang in SEM-1 2017 only); Associate Professor Paul Corry (Decision Science); and Dr Chris Drovandi (Statistical Science).

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Domestic Course structure

Students are required to complete 384 credit points comprised of 192 credit points from the Bachelor of Games and Interactive Environments program and 192 credit points from the Bachelor of Mathematics program.

Games and Interactive Environments component:

- 6 units (72 credit points) of games and interactive environments core units, which includes 2 units (24 credit points) of option units* selected from an approved list.
- 10 units (120 credit points) of Major core units

Mathematics component:

- 6 core units (72 credit points), which are further divided into 4 mathematics core units (48 credit points), and 2 core option units* (24 credit points) selected from an approved list.
- 10 major core units (120 credit points).

** Unit options list - comprises a wide variety of foundation units from a range of disciplines offered at QUT. In the Mathematics component, there is an opportunity to choose additional mathematics units, which includes a unit specially designed to assist students without a background of successful study in Mathematics C at high school; an alternative unit aimed at high achieving students that explores some interesting and unusual aspects of mathematics in some detail; and a unit introducing the field of computational and simulation science which combines mathematics, science and computing to simulate real-world problems. The core option choices can be used to complement your Major studies.*

International Course structure

Students are required to complete 384 credit points comprised of 192 credit points from the Bachelor of Games and Interactive Environments program and 192 credit points from the Bachelor of Mathematics program.

Games and Interactive Environments component:

- 6 units (72 credit points) of games and interactive environments core units, which includes 2 units (24 credit points) of option units* selected from an approved list.
- 10 units (120 credit points) of Major core units

Mathematics component:

- 6 core units (72 credit points), which are further divided into 4 mathematics core units (48 credit points), and 2 core option units* (24 credit points) selected from an approved list.
- 10 major core units (120 credit points).

** Unit options list - comprises a wide variety of foundation units from a range of disciplines offered at QUT. In the Mathematics component, there is an opportunity to choose additional mathematics units, which includes a unit specially designed to assist students without a background of successful study in Mathematics C at high school; an alternative unit aimed at high achieving students that explores some interesting and unusual aspects of mathematics in some detail; and a unit introducing the field of computational and simulation science which combines mathematics,*

Bachelor of Games and Interactive Environments/Bachelor of Mathematics

science and computing to simulate real-world problems. The core option choices can be used to complement your Major studies.

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
IGB180	Computer Games Studies
IGB181	Game Production and Technology
Year 1, Semester 2	
IFB103	Designing for IT
IFB104	Building IT Systems
Year 2, Semester 1	
IGB100	Game Studio 1: Mini-Game Development
BGIE Core Unit Option	
Year 2, Semester 2	
KNB123	Animation and Motion Graphics
KNB124	3D Animation 1
Year 3, Semester 1	
KNB212	Real-time 3D Computer Graphics
BGIE Core Unit Option	
Year 3, Semester 2	
IGB200	Game Studio 2: Applied Game Development
KNB221	Animation: CG Toolkit
OR	
KNB222	Virtual Environments
Year 4, Semester 1	
IGB300	Capstone Project (Game Design)
KNB211	3D Animation 2
Year 4, Semester 2	
IGB301	Capstone Project (Game Development)
IGB400	Game Studio 3: Game Innovation

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
IGB180	Computer Games Studies
IGB181	Game Production and Technology
Year 1, Semester 2	
IFB103	Designing for IT
IFB104	Building IT Systems
Year 2, Semester 1	
IGB100	Game Studio 1: Mini-Game Development
BGIE Core Unit Option	
Year 2, Semester 2	
IGB220	Fundamentals of Game Design
DXB304	Interactive Narrative Design
Year 3, Semester 1	
DXB303	Programming for Visual Designers
BGIE Core Unit Option	
Year 3, Semester 2	
IGB200	Game Studio 2: Applied Game Development
IGB321	Immersive Game Level Design
Year 4, Semester 1	
IGB320	Game Design in Different Contexts
IGB300	Capstone Project (Game Design)
Year 4, Semester 2	
IGB301	Capstone Project (Game Development)
IGB400	Game Studio 3: Game Innovation

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
IGB180	Computer Games Studies
IGB181	Game Production and Technology
Year 1, Semester 2	
IFB103	Designing for IT
IFB104	Building IT Systems
Year 2, Semester 1	
IGB100	Game Studio 1: Mini-Game Development
BGIE Core Unit Option	
Year 2, Semester 2	
CAB201	Programming Principles
IGB283	Game Engine Theory and Application
Year 3, Semester 1	
CAB301	Algorithms and Complexity
BGIE Core Unit Option	
Year 3, Semester 2	
IGB200	Game Studio 2: Applied Game Development
IGB381	Game Engine Technology
Year 4, Semester 1	
IGB383	AI for Games
IGB300	Capstone Project (Game Design)
Year 4, Semester 2	
IGB301	Capstone Project (Game Development)
IGB400	Game Studio 3: Game Innovation

Semesters

- Applied and Computational Mathematics Major unit set:
- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2
- NOTE:

Code	Title
Applied and Computational Mathematics Major unit set:	
Year 1 Semester 1	
MXB102	Abstract Mathematical Reasoning
Maths Core Options Unit**	
OR	
MXB101	Probability and Stochastic Modelling 1
OR	
MXB103	Introductory Computational Mathematics
Year 1 Semester 2	
MXB105	Calculus of One and Two Variables

Bachelor of Games and Interactive Environments/Bachelor of Mathematics

MXB106	Linear Algebra and Differential Equations
(PLEASE NOTE: you will need to nominate your Maths major in your Study Plan to select MXB105 and MXB106. These units are common to all three Maths majors)	
Year 2 Semester 1	
MXB101	Probability and Stochastic Modelling 1
OR Maths Core Options Unit** (select if completed MXB101 in first year)	
MXB103	Introductory Computational Mathematics
OR Maths Core Options Unit** (select if completed MXB103 in first year)	
Year 2 Semester 2	
MXB107	Introduction to Statistical Modelling
Maths Core Options Unit**	
Year 3 Semester 1	
MXB201	Advanced Linear Algebra
MXB221	Ordinary Differential Equations
Year 3 Semester 2	
MXB202	Advanced Calculus
MXB222	Computational Linear Algebra
Year 4 Semester 1	
MXB321	Applied Transport Theory
MXB322	Partial Differential Equations
Year 4 Semester 2	
MXB323	Dynamical Systems
MXB324	Computational Fluid Dynamics
NOTE:	
** Only TWO (2) Option units may be taken in these 4 unit-slots.	

Semesters

- Decision Science Major unit set:
- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2
- NOTE:

Code	Title
Decision Science Major unit set:	
Year 1 Semester 1	
MXB102	Abstract Mathematical Reasoning
Maths Core Options Unit**	
OR	
MXB101	Probability and Stochastic Modelling 1
OR	
MXB103	Introductory Computational Mathematics
Year 1 Semester 2	
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
(PLEASE NOTE: you will need to nominate your Maths major in your Study Plan to select MXB105 and MXB106. These units are common to all three Maths majors)	
Year 2 Semester 1	
MXB101	Probability and Stochastic Modelling 1
OR Maths Core Options Unit** (select if completed MXB101 in first year)	
MXB103	Introductory Computational Mathematics
OR Maths Core Options Unit** (select if completed MXB103 in first year)	
Year 2 Semester 2	
MXB107	Introduction to Statistical Modelling
Maths Core Options Unit	
Year 3 Semester 1	
MXB201	Advanced Linear Algebra
MXB232	Introduction to Operations Research
Year 3 Semester 2	
MXB202	Advanced Calculus
MXB241	Probability and Stochastic Modelling 2
OR	
CAB201	Programming Principles
Year 4 Semester 1	
MXB332	Optimisation Modelling
MXB341	Statistical Inference
OR	
MXB351	Coding Theory and Graph Theory
Year 4 Semester 2	
MXB334	Operations Research for Stochastic Processes
MXB335	Advanced Optimisation Modelling
NOTE:	
** Only TWO (2) Option units may be taken in these 4 unit-slots.	

Semesters

- Statistical Science Major unit set:
- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2
- NOTE:

Code	Title
Statistical Science Major unit set:	
Year 1 Semester 1	
MXB102	Abstract Mathematical Reasoning
Maths Core Options Unit**	
OR	
MXB101	Probability and Stochastic Modelling 1
OR	
MXB103	Introductory Computational Mathematics
Year 1 Semester 2	
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
(PLEASE NOTE: you will need to nominate your Maths major in your Study Plan to select MXB105 and MXB106. These units are common to all three Maths majors)	
Year 2 Semester 1	
MXB101	Probability and Stochastic Modelling 1
OR Maths Core Options Unit** (select if completed MXB101 in first year)	
MXB103	Introductory Computational Mathematics
OR Maths Core Options Unit** (select if completed MXB103 in first year)	
Year 2 Semester 2	
MXB107	Introduction to Statistical Modelling
Maths Core Options Unit**	
Year 3 Semester 1	
MXB201	Advanced Linear Algebra
MXB242	Regression and Design
Year 3 Semester 2	
MXB202	Advanced Calculus
MXB241	Probability and Stochastic Modelling 2
Year 4 Semester 1	
MXB341	Statistical Inference
MXB342	Statistical Techniques
Year 4 Semester 2	
MXB343	Modelling Dependent Data
MXB344	Generalised Linear Models
NOTE:	
** Only TWO (2) Option units may be taken in these 4 unit-slots.	

Bachelor of Engineering (Honours)/Bachelor of Science

Handbook

Year	2017
QUT code	SE80
CRICOS	084924E
Duration (full-time)	5 years
OP	9
Rank	81
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $32200 per year full-time (96 credit points)
Total credit points	480
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - (Engineering); Dr Graham Johnson (Science); email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Dr Brian Lee (Civil); Dr Wayne Kelly (Computer & Software Systems); Dr Jacob Coetzee (Electrical); Ass. Prof Felipe Gonzalez (Electrical & Aerospace); Professor Ted Steinberg (Mechanical); Ass. Professor Jason Ford (Mechatronics); Dr Devakar Epari (Medical); and Ass. Professor Robert Speight (Process); Dr Marion Bateson (Biological Science); Dr James Blinco (Chemistry); Dr Luke Nothdurft (Earth Science); Dr Andrew Baker (Environmental Science); and Prof Nunzio Motto (Physics)

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Domestic Course structure

To graduate with a Bachelor of Engineering (Honours) in SE80, students are required to complete 288 credit points of course units, as outlined below:

- First year: four (4) core units 48cp + two (2) discipline foundation units 24cp + two (2) option units 24cp (96 credit points)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

International Course structure

To graduate with a Bachelor of Engineering (Honours) in SE80, students are required to complete 288 credit points of course units, as outlined below:

- First year: four (4) core units 48cp + two (2) discipline foundation units 24cp + two (2) option units 24cp (96 credit points)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

Sample Structure

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
[As of 2015, SEB101, SEB102 and SEB114 have been replaced by SEB104, SEB115 and SEB116.]	
Year 1 Semester 2	
Science Core Options Unit	
Science Core Options Unit	
Year 2 Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 2 Semester 2	
BVB101	Foundations of Biology
BVB102	Evolution
Year 3 Semester 1	
BVB201	Biological Processes
BVB202	Experimental Design and Quantitative Methods
Year 3 Semester 2	
BVB203	Plant Biology
BVB204	Ecology
Year 4 Semester 1	
BVB301	Animal Biology
BVB305	Microbiology and the Environment
Year 4 Semester 2	

BVB302	Applied Biology
BVB304	Integrative Biology

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
[As of 2015, SEB101, SEB102 and SEB114 have been replaced by SEB104, SEB115 and SEB116.]	
Year 1 Semester 2	
Science Core Options Unit	
Science Core Options Unit	
Year 2 Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 2 Semester 2	
CVB101	General Chemistry
CVB102	Chemical Structure and Reactivity
Year 3 Semester 1	
CVB201	Inorganic Chemistry
CVB202	Analytical Chemistry
Year 3 Semester 2	
CVB203	Physical Chemistry
CVB204	Organic Structure and Mechanisms
Year 4 Semester 1	
CVB301	Organic Chemistry: Strategies for Synthesis
CVB302	Applied Physical Chemistry
Year 4 Semester 2	
CVB303	Coordination Chemistry
CVB304	Chemistry Research Project

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
[As of 2015, SEB101, SEB102 and SEB114 have been replaced by SEB104, SEB115 and SEB116.]	
Year 1 Semester 2	
Science Core Options Unit	
Science Core Options Unit	
Year 2 Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 2 Semester 2	
ERB101	Earth Systems
ERB102	Evolving Earth
Year 3 Semester 1	
ERB201	Destructive Earth: Natural Hazards
ERB202	Marine Geoscience
Year 3 Semester 2	
ERB203	Sedimentary Geology and Stratigraphy
ERB204	Deforming Earth: Fundamentals of Structural Geology
Year 4 Semester 1	
ERB301	Chemical Earth
ERB302	Applied Geophysics
Year 4 Semester 2	
ERB303	Energy Resources and Basin Analysis
ERB304	Dynamic Earth: Plate Tectonics

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
[As of 2015, SEB101, SEB102 and SEB114 have been replaced by SEB104, SEB115 and SEB116.]	
Year 1 Semester 2	
Science Core Options Unit	
Science Core Options Unit	
Year 2 Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 2 Semester 2	
ERB101	Earth Systems
EVB102	Ecosystems and the Environment
Year 3 Semester 1	
BVB202	Experimental Design and Quantitative Methods
EVB201	Global Environmental Issues
Year 3 Semester 2	
BVB204	Ecology
[EVB301 replaced by BVB204 in 2017]	
EVB203	Geospatial Information Science
Year 4 Semester 1	
EVB302	Environmental Pollution
EVB312	Soils and the Environment
[EVB212 replaced by EVB312 in 2017]	
Year 4 Semester 2	
ERB310	Groundwater Systems
[ENB380 replaced by ERB310 in 2017]	
EVB304	Case Studies in Environmental Science

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 1 Semester 2	
PVB102	Physics of the Very Small
SEB104	Grand Challenges in

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	Science
Year 2 Semester 1	
PVB210	Stellar Astrophysics
SEB113	Quantitative Methods in Science
Year 2 Semester 2	
PVB202	Mathematical Methods in Physics
Science Core Options	
Year 3 Semester 1	
PQB360	Global Energy Balance and Climate Change
PVB203	Experimental Physics
Year 3 Semester 2	
PVB204	Electromagnetism
Science Core Options	
Year 4 Semester 1	
PVB301	Materials and Thermal Physics
PVB302	Classical and Quantum Physics
Year 4 Semester 2	
PVB303	Nuclear and Particle Physics
PVB304	Physics Research

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4, Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
Foundation Unit Option	
EGB123	Civil Engineering Systems
Year 3 - Semester 1	
EGB270	Civil Engineering Materials
EGB272	Traffic and Transport Engineering
Year 3 - Semester 2	
EGB273	Principles of Construction
EGB373	Geotechnical Engineering
Year 4, Semester 1	
EGB275	Structural Mechanics
EGB371	Engineering Hydraulics
Year 4 - Semester 2	
EGB376	Steel Design
EGH471	Advanced Water Engineering
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
EGB375	Design of Concrete Structures
EGH473	Advanced Geotechnical Engineering
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH472	Advanced Highway and Pavement Engineering
EGH475	Advanced Concrete Structures
EGH479	Advances in Civil Engineering Practice

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Intermediate Software Option Unit
- Advanced Electrical Option Unit
- Advanced Software Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB242	Signal Analysis
CAB202	Microprocessors and Digital Systems
Year 3 - Semester 2	
CAB201	Programming Principles
Computer Science students must take CAB201 in your Computer and Software Systems major. Please contact Science and Engineering Faculty to have 12 credit points added to your Computer Science Unit Options List.	
Intermediate Electrical Option Unit	
Year 4 - Semester 1	
EGB240	Electronic Design
Intermediate Software Option Unit	
For students with Computer Science Major: CAB301 and CAB302 are core to the Computer Science Major. Please contact Science and Engineering Faculty to be provided a list of additional units you can select from.	
Year 4 - Semester 2	
CAB403	Systems Programming
Intermediate Electrical or Software Option Unit	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
Advanced Electrical or Software Option Unit	
EGH400-1	Research Project 1
EGH456	Embedded Systems
Year 5 - Semester 2	
EGH400-2	Research Project 2
Advanced Software Option Unit	
Advanced Electrical Option Unit	
EGH455	Advanced Systems Design
Intermediate Electrical Option Unit	
EGB348	Electronics
EGB345	Control and Dynamic Systems

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EGB342	Telecommunications and Signal Processing
Intermediate Software Option Unit	
CAB302	Software Development
CAB301	Algorithms and Complexity
Advanced Electrical Option Unit	
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics
Advanced Software Option Unit	
CAB432	Cloud Computing
CAB401	High Performance and Parallel Computing

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Advanced Electrical Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
CAB202	Microprocessors and Digital Systems
Year 3 - Semester 1	
EGB240	Electronic Design
EGB241	Electromagnetics and Machines
Year 3 - Semester 2	
EGB242	Signal Analysis
Intermediate Electrical Option Unit (1)	
Year 4 - Semester 1	
EGB340	Design and Practice
Foundation Unit Option	
Year 4 - Semester 2	
Intermediate Electrical Option Unit (2)	
Intermediate Electrical Option Unit (3)	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
Advanced Electrical Option Unit (1)	
Advanced Electrical Option Unit (2)	
Year 5 - Semester 2	
EGH400-2	Research Project 2
Advanced Electrical Option Unit (3)	
Advanced Electrical Option Unit (4)	
Advanced Electrical Option Unit (5)	
Intermediate Electrical Option Unit	
EGB341	Energy Supply and Delivery
EGB342	Telecommunications and Signal Processing
EGB345	Control and Dynamic Systems
EGB348	Electronics
Advanced Electrical Option Unit	
EGH440	Power Systems Analysis
EGH441	Power System Modelling
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Advanced Electrical Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
CAB202	Microprocessors and Digital Systems
EGB241	Electromagnetics and Machines
Year 3 - Semester 2	
EGB242	Signal Analysis
Intermediate Electrical Option Unit (1)	
Year 4 - Semester 1	
EGB340	Design and Practice
EGB240	Electronic Design
Year 4 - Semester 2	
Intermediate Electrical Option Unit (2)	
Intermediate Electrical Option Unit (3)	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
Advanced Electrical Option Unit (1)	
Advanced Electrical Option Unit (2)	
Year 5 - Semester 2	
EGH400-2	Research Project 2
Advanced Electrical Option Unit (3)	
Advanced Electrical Option Unit (4)	
Advanced Electrical Option Unit (5)	
Intermediate Electrical Option Unit	
EGB341	Energy Supply and Delivery
EGB342	Telecommunications and Signal Processing
EGB345	Control and Dynamic Systems

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EGB348	Electronics
Advanced Electrical Option Unit	
EGH440	Power Systems Analysis
EGH441	Power System Modelling
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical and Aerospace Option Units
- Advanced Electrical and Aerospace Option Units

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
CAB202	Microprocessors and Digital Systems
EGB240	Electronic Design
Year 3 - Semester 2	
EGB242	Signal Analysis
Intermediate Electrical Option Unit	
Year 4 - Semester 1	
EGB349	Systems Engineering and Design Project
EGB243	Aircraft Systems and Flight
Year 4 - Semester 2	
EGB346	Unmanned Aircraft Systems
EGB345	Control and Dynamic Systems
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH446	Autonomous Systems
EGH400-1	Research Project 1
Advanced Electrical Option Unit	
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH445	Modern Control
EGH450	Advanced Unmanned Aircraft Systems
Advanced Electrical Option Unit	
Intermediate Electrical and Aerospace Option Units	
CAB403	Systems Programming
EGB342	Telecommunications and Signal Processing
EGB348	Electronics
Advanced Electrical and Aerospace Option Units	
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH448	Power Electronics
EGH449	Advanced Electronics
EGH455	Advanced Systems Design
EGH456	Embedded Systems

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB210	Fundamentals of Mechanical Design
EGB214	Materials and Manufacturing
Year 3 - Semester 2	
EGB211	Dynamics
EGB314	Strength of Materials
Year 4 - Semester 1	
EGB321	Dynamics of Machines
EGB323	Fluid Mechanics
Year 4 - Semester 2	
EGB322	Thermodynamics
EGH404	Research in Engineering Practice
Year 5 - Semester 1	
EGB316	Design of Machine Elements
EGH400-1	Research Project 1
EGH414	Stress Analysis
EGH421	Vibration and Control
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH420	Mechanical Systems Design
EGH422	Advanced Thermodynamics
EGH423	Fluids Dynamics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1

Bachelor of Engineering (Honours)/Bachelor of Science

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB242	Signal Analysis
EGB211	Dynamics
Year 3 - Semester 2	
EGB345	Control and Dynamic Systems
CAB202	Microprocessors and Digital Systems
Year 4 - Semester 1	
EGB220	Mechatronics Design 1
EGB321	Dynamics of Machines
Year 4 - Semester 2	
EGB320	Mechatronics Design 2
Intermediate Electrical Option Unit	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
EGH419	Mechatronics Design 3
EGH446	Autonomous Systems
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH445	Modern Control
EGH413	Advanced Dynamics
Advanced Electrical Option Unit	

Intermediate Electrical Option Unit	
CAB403	Systems Programming
EGB348	Electronics
Intermediate Mechanical Option Unit	
EGB321	Dynamics of Machines
EGB323	Fluid Mechanics
Advanced Electrical Option Unit	
EGH456	Embedded Systems
EGH455	Advanced Systems Design
EGH448	Power Electronics
EGH449	Advanced Electronics
Advanced Mechanical Option Unit	
EGH413	Advanced Dynamics
EGH423	Fluids Dynamics

Semesters

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB210	Fundamentals of Mechanical Design
LSB131	Anatomy
Year 3 - Semester 2	
EGB211	Dynamics
LSB231	Physiology

Year 4 - Semester 1	
EGB214	Materials and Manufacturing
EGB323	Fluid Mechanics
Year 4 - Semester 2	
EGB314	Strength of Materials
EGH404	Research in Engineering Practice
Year 5 - Semester 1	
EGB319	BioDesign
EGH400-1	Research Project 1
EGH414	Stress Analysis
EGH418	Biomechanics
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH424	Biofluids
EGH435	Modelling and Simulation for Medical Engineers
EGH438	Biomaterials

Semesters

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
CVB220	Process Principles

EGB363	Safety and Environmental Management
Year 3 - Semester 2	
CVB101	General Chemistry
EGB322	Thermodynamics
Year 4 - Semester 1	
EGB260	Operations Management and Process Economics
EGB323	Fluid Mechanics
Year 4 - Semester 2	
EGH404	Research in Engineering Practice
EGH423	Fluids Dynamics
Year 5 - Semester 1	
EGB361	Minerals and Minerals Processing
EGH400-1	Research Project 1
Plant and Process Design	
Unit Operation	
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH411	Industrial Chemistry
EGH422	Advanced Thermodynamics
EGH460	Advanced Process Modelling

Bachelor of Science/Bachelor of Games and Interactive Environments

Handbook

Year	2017
QUT code	SE90
CRICOS	092649G
Duration (full-time)	4 years
OP	11
Rank	76
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $29200 per year full-time (96 credit points)
Total credit points	384
Credit points full-time sem.	48
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Graham Johnson (Science); Dr Ross Brown (Games and Interactive Environments; email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Dr Marion Bateson (Biological Science); Dr James Blinco (Chemistry - previously Dr Sara Couperthwaite in SEM-1 2017); Dr Luke Nothdurft (Earth Science); Dr Andrew Baker (Environmental Science); Prof Nunzio Motto (Physics - previously Dr Jamie Trapp in SEM-1 2017).

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Domestic Course structure

Students are required to complete 384 credit points comprised of 192 credit points from the Bachelor of Science program and 192 credit points from the Bachelor of Games and Interactive Environments program.

Science component:

- 6 units (72 credit points) of science core units, which includes 2 units (24 credit points) of option units* selected from an approved list.
- 10 units (120 credit points) of Major core units.

Games and Interactive Environments component:

- 6 units (72 credit points) of games and interactive environments core units, which includes 2 units (24 credit points) of option units* selected from an approved list.
- 10 units (120 credit points) of Major core units.

** Unit options list - comprises a wide variety of foundation units from a range of disciplines offered at QUT. The core option choices can be used to complement your Major studies.*

International Course structure

Students are required to complete 384 credit points comprised of 192 credit points from the Bachelor of Science program and 192 credit points from the Bachelor of Games and Interactive Environments program.

Science component:

- 6 units (72 credit points) of science core units, which includes 2 units (24 credit points) of option units* selected from an approved list.
- 10 units (120 credit points) of Major core units.

Games and Interactive Environments component:

- 6 units (72 credit points) of games and interactive environments core units, which includes 2 units (24 credit points) of option units* selected from an approved list.
- 10 units (120 credit points) of Major core units.

** Unit options list - comprises a wide variety of foundation units from a range of disciplines offered at QUT. The core option choices can be used to complement your Major studies.*

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 1, Semester 2	
Science Core Unit Option	
Science Core Unit Option	
Year 2, Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science

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Year 2, Semester 2	
BVB101	Foundations of Biology
BVB102	Evolution
Year 3, Semester 1	
BVB201	Biological Processes
BVB202	Experimental Design and Quantitative Methods
Year 3, Semester 2	
BVB203	Plant Biology
BVB204	Ecology
Year 4, Semester 1	
BVB301	Animal Biology
BVB305	Microbiology and the Environment
Year 4, Semester 2	
BVB302	Applied Biology
BVB304	Integrative Biology

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 1, Semester 2	
Science Core Unit Option	
Science Core Unit Option	
Year 2, Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
Year 2, Semester 2	
CVB101	General Chemistry
CVB102	Chemical Structure and Reactivity
Year 3, Semester 1	
CVB201	Inorganic Chemistry
CVB202	Analytical Chemistry
Year 3, Semester 2	
CVB203	Physical Chemistry
CVB204	Organic Structure and Mechanisms
Year 4, Semester 1	
CVB301	Organic Chemistry: Strategies for
	Synthesis
CVB302	Applied Physical Chemistry
Year 4, Semester 2	
CVB303	Coordination Chemistry
CVB304	Chemistry Research Project

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 1, Semester 2	
Science Core Unit Option	
Science Core Unit Option	
Year 2, Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
Year 2, Semester 2	
ERB101	Earth Systems
ERB102	Evolving Earth
Year 3, Semester 1	
ERB201	Destructive Earth: Natural Hazards
ERB202	Marine Geoscience
Year 3, Semester 2	
ERB203	Sedimentary Geology and Stratigraphy
ERB204	Deforming Earth: Fundamentals of Structural Geology
Year 4, Semester 1	
ERB301	Chemical Earth
ERB302	Applied Geophysics
Year 4, Semester 2	
ERB303	Energy Resources and Basin Analysis
ERB304	Dynamic Earth: Plate Tectonics

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 1, Semester 2	
Science Core Unit Option	
Science Core Unit Option	
Year 2, Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
Year 2, Semester 2	
ERB101	Earth Systems
EVB102	Ecosystems and the Environment
Year 3, Semester 1	
BVB202	Experimental Design and Quantitative Methods
EVB201	Global Environmental Issues
Year 3, Semester 2	
BVB204	Ecology
[EVB301 replaced by BVB204 in 2017]	
EVB203	Geospatial Information Science
Year 4, Semester 1	
EVB302	Environmental Pollution
EVB312	Soils and the Environment
[EVB212 replaced by EVB312 in 2017]	
Year 4, Semester 2	
ERB310	Groundwater Systems
[ENB380 replaced by ERB310 in 2017]	
EVB304	Case Studies in Environmental Science

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental

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	Science 2
Year 1, Semester 2	
Science Core Unit Option	
Science Core Unit Option	
Year 2, Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
Year 2, Semester 2	
PVB101	Physics of the Very Large
PVB102	Physics of the Very Small
Year 3, Semester 1	
PVB200	Computational and Mathematical Physics
PVB203	Experimental Physics
[PVB201 replaced by PVB200 in 2015.]	
Year 3, Semester 2	
PVB202	Mathematical Methods in Physics
PVB204	Electromagnetism
Year 4, Semester 1	
PVB301	Materials and Thermal Physics
PVB302	Classical and Quantum Physics
Year 4, Semester 2	
PVB303	Nuclear and Particle Physics
PVB304	Physics Research

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
IGB180	Computer Games Studies
IGB181	Game Production and Technology
Year 1, Semester 2	
IFB103	Designing for IT
IFB104	Building IT Systems
Year 2, Semester 1	
IGB100	Game Studio 1: Mini-Game Development
BGIE Core Unit Option	
Year 2, Semester 2	
KNB123	Animation and Motion Graphics
KNB124	3D Animation 1
Year 3, Semester 1	
KNB212	Real-time 3D Computer Graphics
BGIE Core Unit Option	
Year 3, Semester 2	
IGB200	Game Studio 2: Applied Game Development
KNB221	Animation: CG Toolkit
OR	
KNB222	Virtual Environments
Year 4, Semester 1	
IGB300	Capstone Project (Game Design)
KNB211	3D Animation 2
Year 4, Semester 2	
IGB301	Capstone Project (Game Development)
IGB400	Game Studio 3: Game Innovation

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
IGB180	Computer Games Studies
IGB181	Game Production and Technology
Year 1, Semester 2	
IFB103	Designing for IT
IFB104	Building IT Systems
Year 2, Semester 1	
IGB100	Game Studio 1: Mini-Game Development
BGIE Core Unit Option	
Year 2, Semester 2	
IGB220	Fundamentals of Game Design
DXB304	Interactive Narrative Design
Year 3, Semester 1	
DXB303	Programming for Visual Designers
BGIE Core Unit Option	
Year 3, Semester 2	
IGB200	Game Studio 2: Applied Game Development
IGB321	Immersive Game Level Design
Year 4, Semester 1	
IGB320	Game Design in Different Contexts
IGB300	Capstone Project (Game Design)
Year 4, Semester 2	
IGB301	Capstone Project (Game Development)
IGB400	Game Studio 3: Game Innovation

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
IGB180	Computer Games Studies
IGB181	Game Production and Technology
Year 1, Semester 2	
IFB103	Designing for IT
IFB104	Building IT Systems
Year 2, Semester 1	
IGB100	Game Studio 1: Mini-Game Development
BGIE Core Unit Option	
Year 2, Semester 2	
CAB201	Programming Principles
IGB283	Game Engine Theory and Application
Year 3, Semester 1	
CAB301	Algorithms and Complexity
BGIE Core Unit Option	
Year 3, Semester 2	
IGB200	Game Studio 2: Applied Game Development
IGB381	Game Engine Technology
Year 4, Semester 1	
IGB383	AI for Games
IGB300	Capstone Project (Game Design)
Year 4, Semester 2	
IGB301	Capstone Project (Game Development)

Bachelor of Science/Bachelor of Games and Interactive Environments

IGB400	Game Studio 3: Game Innovation

Bachelor of Engineering (Honours)

Handbook

Year	2017
QUT code	EN01
CRICOS	084921G
Duration (full-time)	4 years
OP	9
Rank	81
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $32300 per year full-time (96 credit points)
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Professional Recognition

Full professional accreditation from Engineers Australia has been given for all primary majors in this course.

Complementary Studies

You have the opportunity to undertake a second major or two minors. A second major is a set of eight units (96 credit points) in the same discipline. A minor is a set of four units (48 credit points) in the same discipline. You will select your primary major, second major and/or minors after the completion of your first year.

Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Honours) must obtain at least 60 days of industrial experience/practice in an engineering environment as approved by the course coordinator.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Course Design

Your QUT Bachelor of Engineering (Honours) degree consists of 384 credit points (32 units) arranged as follows:

(a) First Year: Four (4) core units 48cp + two (2) Discipline Foundation units 24cp + two (2) option units 24cp (96 credit points)

(b) Major: One (1) block of eight (8) major units 96cp plus eight (8) Honours level units 96cp (192 credit points)

Honours units to consist of:
• Research methods 12cp
• Project 24cp
• 5 x Advanced major units 60cp

Available Majors are:

• Civil
• Computer and Software Systems
• Electrical
• Electrical and Aerospace
• Mechatronics
• Mechanical
• Medical, or
• Process

(c) Complementary Studies: 1 x Second Major (8 unit set) or 2 x Minor (4 unit set each)from the options specified for your chosen major. (96 credit points)

Pathways to Further Study

The (EN01) Bachelor of Engineering (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates may be eligible for discipline relevant Masters and/or Doctoral level programs.

Sample Structure

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
EGB111	Foundation of Engineering Design
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics

OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
MZB126	Engineering Computation
Plus 36cp from ONE of the Engineering Foundation Strands	

If you're intended to select Medical Engineering Major, please refer your first year study plan at Medical major 1st Year - July Entry

Code	Title
Year 1 - Semester 2	
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
EGB100	Engineering Sustainability and Professional Practice
PVB101	Physics of the Very Large
PVB101 is the substitute unit of EGB113 in semester 2	
Plus select 12cp (1 unit) from ONE of the Engineering Foundation Strands	
Year 2 - Semester 1	
MZB126	Engineering Computation
EGB111	Foundation of Engineering Design
Plus select 24cp (2 units) from ONE of the Engineering Foundation Strands	

Bachelor of Engineering (Honours) (Civil)

Handbook

Year	2017
QUT code	EN01
CRICOS	084921G
Duration (full-time)	4 years
OP	9
Rank	81
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $32300 per year full-time (96 credit points)
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Dr Brian Lee

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

Complementary Studies

You will have the opportunity to undertaken either a 2nd major or two minors.

Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Honours)(Civil) must obtain at least 60 days of industrial experience/practice in an engineering environment as approved by the course coordinator.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Domestic Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major(192 credit points): one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp
- Complementary studies(96 credit points): one x second major or two x minor .

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

International Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major(192 credit points): one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp
- Complementary studies(96 credit points): one x second major or two x minor .

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

Sample Structure

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
EGB111	Foundation of Engineering Design
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering

Bachelor of Engineering (Honours) (Civil)

	Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
MZB126	Engineering Computation
Plus 36cp from ONE of the Engineering Foundation Strands	

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 2, Semester 1	
EGB270	Civil Engineering Materials
EGB272	Traffic and Transport Engineering
EGB275	Structural Mechanics
EGB371	Engineering Hydraulics
Year 2, Semester 2	
EGB273	Principles of Construction
EGB373	Geotechnical Engineering
EGB376	Steel Design
EGH471	Advanced Water Engineering
Year 3, Semester 1	
EGB375	Design of Concrete Structures
EGH473	Advanced Geotechnical Engineering
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 2	
EGH472	Advanced Highway and Pavement Engineering
EGH475	Advanced Concrete Structures
2nd Major/Minor unit	
EGH404	Research in Engineering Practice
- Substitute unit EGH403 if needed for Semester 1, 2016	
Year 4, Semester 1	
EGH400-1	Research Project 1
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 4, Semester 2	
EGH400-2	Research Project 2
EGH479	Advances in Civil Engineering Practice
2nd Major/Minor unit	
2nd Major/Minor unit	

If you're intended to select Medical Engineering Major, please refer your first year study plan at Medical major 1st Year - July Entry

Code	Title
Year 1 - Semester 2	
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
EGB100	Engineering Sustainability and Professional Practice
EGB113	Energy in Engineering Systems
OR	
PVB101	Physics of the Very Large
EGB123	Civil Engineering Systems
OR	
Foundation Unit Option	
Year 2 - Semester 1	
MZB126	Engineering Computation
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
EGB120	Foundations of Electrical Engineering
OR	
Foundation Unit Option	

Semesters

- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1

Code	Title
Year 1, Semester 2	
EGB100	Engineering Sustainability and Professional Practice
EGB113	Energy in Engineering Systems
Or	
PVB101	Physics of the Very Large
MZB125	Introductory Engineering Mathematics
Or	
MXB161	Computational Explorations
EGB123	Civil Engineering Systems
Year 2, Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
MZB126	Engineering Computation
EGB270	Civil Engineering Materials
Year 2, Semester 2	
EGB273	Principles of Construction
EGB120	Foundations of Electrical Engineering
Or	
Unit Option	
EGB373	Geotechnical Engineering
2nd Major/Minor unit	
Year 3, Semester 1	
EGB272	Traffic and Transport Engineering
EGB275	Structural Mechanics
EGB371	Engineering Hydraulics
2nd Major/Minor unit	
Year 3, Semester 2	
EGB376	Steel Design
EGH471	Advanced Water Engineering
EGH472	Advanced Highway and Pavement Engineering
2nd Major/Minor unit	
Year 4, Semester 1	
EGB375	Design of Concrete Structures
EGH404	Research in Engineering Practice
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 4, Semester 2	
EGH475	Advanced Concrete Structures
EGH479	Advances in Civil Engineering Practice
EGH400-1	Research Project 1

Bachelor of Engineering (Honours) (Civil)

2nd Major/Minor unit	
Year 5, Semester 1	
EGH400-2	Research Project 2
EGH473	Advanced Geotechnical Engineering
2nd Major/Minor unit	
2nd Major/Minor unit	

Semesters

- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1

Code	Title
Year 2, Semester 2	
EGB273	Principles of Construction
EGB373	Geotechnical Engineering
EGB275	Structural Mechanics
2nd Major/Minor unit	
Year 3, Semester 1	
EGB270	Civil Engineering Materials
EGB272	Traffic and Transport Engineering
EGB371	Engineering Hydraulics
2nd Major/Minor unit	
Year 3, Semester 2	
EGH471	Advanced Water Engineering
EGH472	Advanced Highway and Pavement Engineering
EGB376	Steel Design
2nd Major/Minor unit	
Year 4, Semester 1	
EGB375	Design of Concrete Structures
EGH473	Advanced Geotechnical Engineering
2nd Major/Minor unit	
EGH404	Research in Engineering Practice
- Substitute unit EGH403 if needed for Semester 1, 2016	
Year 4, Semester 2	
EGH475	Advanced Concrete Structures
EGH479	Advances in Civil Engineering Practice
EGH400-1	Research Project 1
2nd Major/Minor unit	
Year 5, Semester 1	
EGH400-2	Research Project 2
2nd Major/Minor unit	
2nd Major/Minor unit	
2nd Major/Minor unit	

Study Area Description
For more details and description on this minor please refer to the ***EN01 Complementary Studies*** at the Faculty's Student Zone under "Your Course" page.

This minor offers a lot of flexibility. Depending on your area of interest you can choose units focusing on **statistical science** (suggested pathway: MXB101, MXB107, MXB202, MXB242), **mathematical and statistical modelling** (suggested pathway: MXB101, MXB105, MXB221, MXB241**), applied mathematics** (suggested pathway: MXB105, MXB106, MXB202, MXB221), **simulation** (suggested pathway: MXB101, MXB106, MXB232, MXB261)**, computation and modelling** (suggested pathway: MXB103, MXB105, MXB221, MXB261).

In this list

Unit List	
Code	Title
Select 2 units (24 credit points) from Unit Option List 1:	
MXB101	Probability and Stochastic Modelling 1
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB107	Introduction to Statistical Modelling
Select 2 units (24 credit points) from Unit Option List 2:	
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations
MXB232	Introduction to Operations Research
MXB241	Probability and Stochastic Modelling 2
MXB242	Regression and Design
MXB261	Modelling and Simulation Science

SUGGESTED PATHWAYS	
Code	Title

Statistical Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB107	Introduction to Statistical Modelling
MXB202	Advanced Calculus
MXB242	Regression and Design

Mathematical and Statistical Modelling	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB241	Probability and Stochastic Modelling 2

Applied Mathematics	
Code	Title
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations

Simulation Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB106	Linear Algebra and Differential Equations
MXB232	Introduction to Operations Research
MXB261	Modelling and Simulation Science

Computation, modelling and simulation	
Code	Title
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and

	Two Variables
MXB221	Ordinary Differential Equations
MXB261	Modelling and Simulation Science

Bachelor of Engineering (Honours) (Computer and Software Systems)

Handbook

Year	2017
QUT code	EN01
CRICOS	084921G
Duration (full-time)	4 years
OP	9
Rank	81
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $32300 per year full-time (96 credit points)
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Dr Wayne Kelly w.kelly@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

Complementary Studies

You will have the opportunity to undertaken either a 2nd major or two minors.

Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Honours)(Computer and Software Systems) must obtain at least 60 days of industrial experience/practice in an engineering environment as approved by the course coordinator.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Domestic Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points)
- Complementary studies: one x second major or two x minor (96 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

International Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: One (1) block of eight (8) major units 96cp plus eight (8) Honours level units 96cp (192 credit points)
- Complementary Studies: 1 x 2nd major or 2 x minor (96 credit points)

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x Advanced major units 60cp

Sample Structure

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
EGB111	Foundation of Engineering Design
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics

Bachelor of Engineering (Honours) (Computer and Software Systems)

OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
MZB126	Engineering Computation
Plus 36cp from ONE of the Engineering Foundation Strands	

Please note -

This is an example study plan for students on a relatively standard progression, however, depending on which units and second majors/minors you choose, you may need to deviate from that plan. Please contact your Subject Area Coordinator **Dr Wayne Kelly**, Email: w.kelly@qut.edu.au if you wish to discuss your study plan options.

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 2, Semester 1	
EGB240	Electronic Design
CAB201	Programming Principles
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 2, Semester 2	
CAB202	Microprocessors and Digital Systems
EGB242	Signal Analysis
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
Intermediate Software Unit Option	
2nd Major/Minor unit	
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 2	
CAB403	Systems Programming
Intermediate Electrical Unit Option	
Intermediate Electrical or Software Unit Option	
EGH404	Research in Engineering Practice
Year 4, Semester 1	
Advanced Electrical Unit Option	
EGH400-1	Research Project 1
EGH456	Embedded Systems
2nd Major/Minor unit	
Year 4, Semester 2	
EGH400-2	Research Project 2
EGH455	Advanced Systems Design
Advanced Electrical or Software Unit Option	
Advanced Software Unit Option	

If you're intended to select Medical Engineering Major, please refer your first year study plan at Medical major 1st Year - July Entry

Code	Title
Year 1 - Semester 2	
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
EGB100	Engineering Sustainability and Professional Practice
EGB113	Energy in Engineering Systems
OR	
PVB101	Physics of the Very Large
EGB123	Civil Engineering Systems
OR	
Foundation Unit Option	
Year 2 - Semester 1	
MZB126	Engineering Computation
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
EGB120	Foundations of Electrical Engineering
OR	
Foundation Unit Option	

Please note -

This is an example study plan for students on a relatively standard progression, however, depending on which units and second majors/minors you choose, you may need to deviate from that plan. Please contact your Subject Area Coordinator **Dr Wayne Kelly**, Email: w.kelly@qut.edu.au if you wish to discuss your study plan options.

Semesters

- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1

Code	Title
Year 2, Semester 2	
EGB242	Signal Analysis
CAB201	Programming Principles
CAB202	Microprocessors and Digital Systems
2nd Major/Minor unit	
Year 3, Semester 1	
EGB240	Electronic Design
Intermediate Software Unit Option	
Intermediate Software Unit Option	
2nd Major/Minor unit	
Year 3, Semester 2	
CAB403	Systems Programming
Intermediate Electrical Unit Option	
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 4, Semester 1	
EGH456	Embedded Systems
Advanced Electrical Unit Option	
Advanced Software Unit Option	
EGH404	Research in Engineering Practice
Year 4, Semester 2	
2nd Major/Minor unit	
2nd Major/Minor unit	
EGH455	Advanced Systems Design
EGH400-1	Research Project 1
Year 5, Semester 1	
EGH400-2	Research Project 2
Advanced Electrical Unit Option	
2nd Major/Minor unit	
2nd Major/Minor unit	

Study Area Description
For more details and description on this minor please refer to the ***EN01 Complementary Studies*** at the Faculty's Student Zone under "Your Course" page.

This minor offers a lot of flexibility. Depending on your area of interest you can choose units focusing on **statistical science** (suggested pathway: MXB101, MXB107, MXB202, MXB242), **mathematical and statistical modelling** (suggested pathway: MXB101, MXB105, MXB221, MXB241**), applied**

mathematics (suggested pathway: MXB105, MXB106, MXB202, MXB221), **simulation** (suggested pathway: MXB101, MXB106, MXB232, MXB261)**, computation and modelling** (suggested pathway: MXB103, MXB105, MXB221, MXB261).

In this list

Unit List	
Code	Title
Select 2 units (24 credit points) from Unit Option List 1:	
MXB101	Probability and Stochastic Modelling 1
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB107	Introduction to Statistical Modelling
Select 2 units (24 credit points) from Unit Option List 2:	
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations
MXB232	Introduction to Operations Research
MXB241	Probability and Stochastic Modelling 2
MXB242	Regression and Design
MXB261	Modelling and Simulation Science

SUGGESTED PATHWAYS	
Code	Title

Statistical Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB107	Introduction to Statistical Modelling
MXB202	Advanced Calculus
MXB242	Regression and Design

Mathematical and Statistical Modelling	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB241	Probability and Stochastic Modelling 2

Applied Mathematics	
Code	Title
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations

Simulation Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB106	Linear Algebra and Differential Equations
MXB232	Introduction to Operations Research
MXB261	Modelling and Simulation Science

Computation, modelling and simulation	
Code	Title
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB261	Modelling and Simulation Science

Bachelor of Engineering (Honours) (Electrical and Aerospace)

Handbook

Year	2017
QUT code	EN01
CRICOS	084921G
Duration (full-time)	4 years
OP	9
Rank	81
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $32300 per year full-time (96 credit points)
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Associate Professor Felipe Gonzalez

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

Complementary Studies

You will have the opportunity to undertaken either a 2nd major or two minors.

Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Honours)(Electrical and Aerospace) must obtain at least 60 days of industrial experience/practice in an engineering environment as approved by the course coordinator.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Domestic Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points)
- Complementary studies: one x second major or two x minor (96 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

International Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: One (1) block of eight (8) major units 96cp plus eight (8) Honours level units 96cp (192 credit points)
- Complementary Studies: 1 x 2nd major or 2 x minor (96 credit points)

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x Advanced major units 60cp

Sample Structure

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
EGB111	Foundation of Engineering Design
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics

Bachelor of Engineering (Honours) (Electrical and Aerospace)

OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
MZB126	Engineering Computation
Plus 36cp from ONE of the Engineering Foundation Strands	

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 2, Semester 1	
EGB240	Electronic Design
CAB202	Microprocessors and Digital Systems
EGB242	Signal Analysis
EGB243	Aircraft Systems and Flight
Year 2, Semester 2	
EGB345	Control and Dynamic Systems
EGB346	Unmanned Aircraft Systems
Intermediate Electrical & Areospace Unit Option	
2nd Major/Minor unit	
Year 3, Semester 1	
EGB349	Systems Engineering and Design Project
Advanced Electrical & Areospace Unit Option	
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 2	
EGH445	Modern Control
EGH450	Advanced Unmanned Aircraft Systems
2nd Major/Minor unit	
EGH404	Research in Engineering Practice
Year 4, Semester 1	
EGH400-1	Research Project 1
EGH446	Autonomous Systems
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 4, Semester 2	
EGH400-2	Research Project 2
Advanced Electrical & Aerospace Unit Option	
2nd Major/Minor unit	
2nd Major/Minor unit	

If you're intended to select Medical Engineering Major, please refer your first year study plan at Medical major 1st Year - July Entry

Code	Title
Year 1 - Semester 2	
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
EGB100	Engineering Sustainability and Professional Practice
EGB113	Energy in Engineering Systems
OR	
PVB101	Physics of the Very Large
EGB123	Civil Engineering Systems
OR	
Foundation Unit Option	
Year 2 - Semester 1	
MZB126	Engineering Computation
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
EGB120	Foundations of Electrical Engineering
OR	
Foundation Unit Option	

Semesters

- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1

Code	Title
Year 2, Semester 2	
EGB242	Signal Analysis
CAB202	Microprocessors and Digital Systems
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
EGB240	Electronic Design
EGB243	Aircraft Systems and Flight
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 2	
EGB345	Control and Dynamic Systems
EGB346	Unmanned Aircraft Systems
Intermediate Electrical & Aerospace Unit Option	
2nd Major/Minor unit	
Year 4, Semester 1	
EGB349	Systems Engineering and Design Project
2nd Major/Minor unit	
2nd Major/Minor unit	
EGH404	Research in Engineering Practice
Year 4, Semester 2	
EGH445	Modern Control
EGH450	Advanced Unmanned Aircraft Systems
Advanced Electrical & Aerospace Unit Option	
EGH400-1	Research Project 1
Year 5, Semester 1	
Advanced Electrical & Aerospace Unit Option	
EGH446	Autonomous Systems
EGH400-2	Research Project 2
2nd Major/Minor unit	

Study Area Description
For more details and description on this minor please refer to the ***EN01 Complementary Studies*** at the Faculty's Student Zone under "Your Course" page.

This minor offers a lot of flexibility. Depending on your area of interest you can choose units focusing on **statistical science** (suggested pathway: MXB101, MXB107, MXB202, MXB242), **mathematical and statistical modelling** (suggested pathway: MXB101, MXB105, MXB221, MXB241**), applied mathematics** (suggested pathway: MXB105, MXB106, MXB202, MXB221), **simulation** (suggested pathway: MXB101, MXB106, MXB232, MXB261)**, computation and modelling** (suggested pathway: MXB103, MXB105, MXB221, MXB261).

In this list

Bachelor of Engineering (Honours) (Electrical and Aerospace)

Unit List	
Code	Title
Select 2 units (24 credit points) from Unit Option List 1:	
MXB101	Probability and Stochastic Modelling 1
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB107	Introduction to Statistical Modelling
Select 2 units (24 credit points) from Unit Option List 2:	
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations
MXB232	Introduction to Operations Research
MXB241	Probability and Stochastic Modelling 2
MXB242	Regression and Design
MXB261	Modelling and Simulation Science

SUGGESTED PATHWAYS	
Code	Title

Statistical Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB107	Introduction to Statistical Modelling
MXB202	Advanced Calculus
MXB242	Regression and Design

Mathematical and Statistical Modelling	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB241	Probability and Stochastic Modelling 2

Applied Mathematics	
Code	Title
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations

Simulation Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB106	Linear Algebra and Differential Equations
MXB232	Introduction to Operations Research
MXB261	Modelling and Simulation Science

Computation, modelling and simulation	
Code	Title
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB261	Modelling and Simulation Science

Bachelor of Engineering (Honours) (Electrical)

Handbook

Year	2017
QUT code	EN01
CRICOS	084921G
Duration (full-time)	4 years
OP	9
Rank	81
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $32300 per year full-time (96 credit points)
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Dr Jacob Coetzee 3138 2865 jacob.coetzee@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

Complementary Studies

You will have the opportunity to undertaken either a 2nd major or two minors.

Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Honours)(Electrical) must obtain at least 60 days of industrial experience/practice in an engineering environment as approved by the course coordinator.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Domestic Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points)
- Complementary studies: one x second major or two x minor (96 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

International Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: One (1) block of eight (8) major units 96cp plus eight (8) Honours level units 96cp (192 credit points)
- Complementary Studies: 1 x 2nd major or 2 x minor (96 credit points)

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x Advanced major units 60cp

Sample Structure

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
EGB111	Foundation of Engineering Design
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics

Bachelor of Engineering (Honours) (Electrical)

OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
MZB126	Engineering Computation
Plus 36cp from ONE of the Engineering Foundation Strands	

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Intermediate Electrical Unit Options List
- Advanced Electrical Unit Options List

Code	Title
Year 2, Semester 1	
EGB241	Electromagnetics and Machines
EGB242	Signal Analysis
CAB202	Microprocessors and Digital Systems
EGB240	Electronic Design
Year 2, Semester 2	
Intermediate Electrical Option Unit[1]	
Intermediate Electrical Option Unit[2]	
Intermediate Electrical Option Unit[3]	
2nd Major/Minor unit[1]	
Year 3, Semester 1	
EGB340	Design and Practice
Advanced Electrical Option Unit[1]	
Advanced Electrical Option Unit [2]or 2nd Major/Minor unit[2]	
2nd Major/Minor unit[3]	
Year 3, Semester 2	
Advanced Electrical Option Unit[3]	
Advanced Electrical Option Unit[4]	
2nd Major/Minor unit[2] or Advanced Electrical Option Unit [2]	
EGH404	Research in Engineering Practice
To be replaced by EGH404 from Semester 2, 2016 - Substitute unit EGH403 if needed for Semester 1 2016	
Year 4, Semester 1	
EGH400-1	Research Project 1
2nd Major/Minor unit[4]	
2nd Major/Minor unit[5]	
2nd Major/Minor unit[6]	
Year 4, Semester 2	
EGH400-2	Research Project 2
Advanced Electrical Option Unit[5]	
2nd Major/Minor unit[7]	
2nd Major/Minor unit[8]	
Intermediate Electrical Unit Options List	
EGB341	Energy Supply and Delivery
EGB342	Telecommunications and Signal Processing
EGB345	Control and Dynamic Systems
EGB348	Electronics
Advanced Electrical Unit Options List	
EGH440	Power Systems Analysis
EGH441	Power System Modelling
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics

If you're intended to select Medical Engineering Major, please refer your first year study plan at Medical major 1st Year - July Entry

Code	Title
Year 1 - Semester 2	
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
EGB100	Engineering Sustainability and Professional Practice
EGB113	Energy in Engineering Systems
OR	
PVB101	Physics of the Very Large
EGB123	Civil Engineering Systems
OR	
Foundation Unit Option	
Year 2 - Semester 1	
MZB126	Engineering Computation
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
EGB120	Foundations of Electrical Engineering
OR	
Foundation Unit Option	

Please refer to the Engineering Honours Majors page under "Your Course" at the Faculty's Student Zone for more details, including a course diagram, on the Electrical engineering major.

Semesters

- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1
- Intermediate Electrical Unit Options List
- Advanced Electrical Unit Options List

Code	Title
Year 2, Semester 2	
EGB242	Signal Analysis
CAB202	Microprocessors and Digital Systems
2nd Major/Minor Unit[1]	
2nd Major/Minor Unit[2]	
Year 3, Semester 1	
EGB241	Electromagnetics and Machines
EGB240	Electronic Design
2nd Major/Minor Unit[3]	
2nd Major/Minor Unit[4]	
Year 3, Semester 2	
Intermediate Electrical Option Unit[1]	
Intermediate Electrical Option Unit[2]	
Intermediate Electrical Option Unit[3]	
2nd Major/Minor Unit[5]	
Year 4, Semester 1	
EGB340	Design and Practice
Advanced Electrical Option Unit[1]	
Advanced Electrical Option Unit[2]	
EGH404	Research in Engineering Practice
To be replaced by EGH404 from Semester 2, 2016 - Substitute unit EGH403 if needed for Semester 1 2016	
Year 4, Semester 2	
EGH400-1	Research Project 1
Advanced Electrical Option Unit[5] or 2nd Major/Minor unit[6]	
Advanced Electrical Option Unit[3]	
Advanced Electrical Option Unit[4]	
Year 5, Semester 1	
EGH400-2	Research Project 2

Bachelor of Engineering (Honours) (Electrical)

Advanced Electrical Option Unit [5]or 2nd Major/Minor unit[6]	
2nd Major/Minor unit[7]	
2nd Major/Minor unit[8]	
Intermediate Electrical Unit Options List	
EGB341	Energy Supply and Delivery
EGB342	Telecommunications and Signal Processing
EGB345	Control and Dynamic Systems
EGB348	Electronics
Advanced Electrical Unit Options List	
EGH440	Power Systems Analysis
EGH441	Power System Modelling
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics

Study Area Description
For more details and description on this minor please refer to the ***EN01 Complementary Studies*** at the Faculty's Student Zone under "Your Course" page.

This minor offers a lot of flexibility. Depending on your area of interest you can choose units focusing on **statistical science** (suggested pathway: MXB101, MXB107, MXB202, MXB242), **mathematical and statistical modelling** (suggested pathway: MXB101, MXB105, MXB221, MXB241**), applied mathematics** (suggested pathway: MXB105, MXB106, MXB202, MXB221), **simulation** (suggested pathway: MXB101, MXB106, MXB232, MXB261)**, computation and modelling** (suggested pathway: MXB103, MXB105, MXB221, MXB261).

In this list

Unit List	
Code	Title
Select 2 units (24 credit points) from Unit Option List 1:	
MXB101	Probability and Stochastic Modelling 1
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB107	Introduction to Statistical Modelling
Select 2 units (24 credit points) from Unit Option List 2:	
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations
MXB232	Introduction to Operations Research
MXB241	Probability and Stochastic Modelling 2
MXB242	Regression and Design
MXB261	Modelling and Simulation Science

SUGGESTED PATHWAYS	
Code	Title

Statistical Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB107	Introduction to Statistical Modelling
MXB202	Advanced Calculus
MXB242	Regression and Design

Mathematical and Statistical Modelling	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB241	Probability and Stochastic Modelling 2

Applied Mathematics	
Code	Title
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations

Simulation Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB106	Linear Algebra and Differential Equations
MXB232	Introduction to Operations Research
MXB261	Modelling and Simulation Science

Computation, modelling and simulation	
Code	Title
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB261	Modelling and Simulation Science

Bachelor of Engineering (Honours) (Mechanical)

Handbook

Year	2017
QUT code	EN01
CRICOS	084921G
Duration (full-time)	4 years
OP	9
Rank	81
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $32300 per year full-time (96 credit points)
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Professor Ted Steinberg

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

Complementary Studies

You will have the opportunity to undertaken either a 2nd major or two minors.

Special Course Requirements

candidate for the degree of Bachelor of Engineering (Honours)(Mechanical) must obtain at least 60 days of industrial experience/practice in an engineering environment as approved by the course coordinator.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Domestic Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points)
- Complementary studies: one x second major or two x minor (96 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

International Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: One (1) block of eight (8) major units 96cp plus eight (8) Honours level units 96cp (192 credit points)
- Complementary Studies: 1 x 2nd major or 2 x minor (96 credit points)

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x Advanced major units 60cp

Sample Structure

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
EGB111	Foundation of Engineering Design
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics

Bachelor of Engineering (Honours) (Mechanical)

OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
MZB126	Engineering Computation
Plus 36cp from ONE of the Engineering Foundation Strands	

If you're intended to select Medical Engineering Major, please refer your first year study plan at Medical major 1st Year - July Entry

Code	Title
Year 1 - Semester 2	
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
EGB100	Engineering Sustainability and Professional Practice
EGB113	Energy in Engineering Systems
OR	
PVB101	Physics of the Very Large
EGB123	Civil Engineering Systems
OR	
Foundation Unit Option	
Year 2 - Semester 1	
MZB126	Engineering Computation
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
EGB120	Foundations of Electrical Engineering
OR	
Foundation Unit Option	

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 2, Semester 1	
EGB210	Fundamentals of Mechanical Design
EGB211	Dynamics
EGB214	Materials and Manufacturing
EGB323	Fluid Mechanics
Year 2, Semester 2	
EGB314	Strength of Materials
EGB322	Thermodynamics
2nd Major/Minor unit option	
2nd Major/Minor unit option	
Year 3, Semester 1	
EGB316	Design of Machine Elements
EGB321	Dynamics of Machines
EGH414	Stress Analysis
2nd Major/Minor unit option	
Year 3, Semester 2	
EGH404	Research in Engineering Practice
EGH422	Advanced Thermodynamics
EGH423	Fluids Dynamics
2nd Major/Minor unit option	
Year 4, Semester 1	
BEB801	Project 1
BEB801 is equivalent to EGH400-1	
EGH421	Vibration and Control
2nd Major/Minor unit option	
2nd Major/Minor unit option	
Year 4, Semester 2	
BEB802	Project 2
BEB802 is equivalent to EGH400-2	
EGH420	Mechanical Systems Design
2nd Major/Minor unit option	
2nd Major/Minor unit option	

Semesters

- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1

Code	Title
Year 2, Semester 2	
EGB211	Dynamics
EGB322	Thermodynamics
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
EGB210	Fundamentals of Mechanical Design
EGB214	Materials and Manufacturing
EGB323	Fluid Mechanics
2nd Major/Minor unit	
Year 3, Semester 2	
EGB314	Strength of Materials
EGH422	Advanced Thermodynamics
EGH423	Fluids Dynamics
2nd Major/Minor unit	
Year 4, Semester 1	
EGB316	Design of Machine Elements
EGB321	Dynamics of Machines
EGH404	Research in Engineering Practice
EGH414	Stress Analysis
Year 4, Semester 2	
BEB801	Project 1
BEB801 is equivalent to EGH400-1	
EGH420	Mechanical Systems Design
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 5, Semester 1	
BEB802	Project 2
BEB802 is equivalent to EGH400-2	
EGH421	Vibration and Control
2nd Major/Minor unit	
2nd Major/Minor unit	

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 2, Semester 1	
EGB210	Fundamentals of Mechanical Design
EGB211	Dynamics
EGB214	Materials and Manufacturing
EGB314	Strength of Materials
Year 2, Semester 2	
EGB321	Dynamics of Machines
EGB322	Thermodynamics
EGB323	Fluid Mechanics
2nd Major/Minor unit option	
Year 3, Semester 1	

Bachelor of Engineering (Honours) (Mechanical)

EGB316	Design of Machine Elements
EGH414	Stress Analysis
2nd Major/Minor unit option	
2nd Major/Minor unit option	
Year 3, Semester 2	
EGH404	Research in Engineering Practice
EGH423	Fluids Dynamics
EGH422	Advanced Thermodynamics
2nd Major/Minor unit option	
Year 4, Semester 1	
EGH400-1	Research Project 1
EGH421	Vibration and Control
2nd Major/Minor unit option	
2nd Major/Minor unit option	
Year 4, Semester 2	
EGH400-2	Research Project 2
EGH420	Mechanical Systems Design
2nd Major/Minor unit option	
2nd Major/Minor unit option	

Semesters

- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1

Code	Title
Year 2, Semester 2	
EGB211	Dynamics
EGB323	Fluid Mechanics
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
EGB210	Fundamentals of Mechanical Design
EGB214	Materials and Manufacturing
EGB321	Dynamics of Machines
2nd Major/Minor unit	
Year 3, Semester 2	
EGB314	Strength of Materials
EGB322	Thermodynamics
EGH423	Fluids Dynamics
2nd Major/Minor unit	
Year 4, Semester 1	
EGB316	Design of Machine Elements
EGH404	Research in Engineering Practice
EGH414	Stress Analysis
2nd Major/Minor unit	
Year 4, Semester 2	
EGH400-1	Research Project 1
EGH420	Mechanical Systems Design
EGH422	Advanced Thermodynamics
2nd Major/Minor unit	
Year 5, Semester 1	
EGH400-2	Research Project 2
EGH421	Vibration and Control
2nd Major/Minor unit	
2nd Major/Minor unit	

Study Area Description
For more details and description on this minor please refer to the ***EN01 Complementary Studies*** at the Faculty's Student Zone under "Your Course" page.

This minor offers a lot of flexibility. Depending on your area of interest you can choose units focusing on **statistical science** (suggested pathway: MXB101, MXB107, MXB202, MXB242), **mathematical and statistical modelling** (suggested pathway: MXB101, MXB105, MXB221, MXB241**), applied mathematics** (suggested pathway: MXB105, MXB106, MXB202, MXB221), **simulation** (suggested pathway: MXB101, MXB106, MXB232, MXB261)**, computation and modelling** (suggested pathway: MXB103, MXB105, MXB221, MXB261).

In this list

Unit List	
Code	Title
Select 2 units (24 credit points) from Unit Option List 1:	
MXB101	Probability and Stochastic Modelling 1
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB107	Introduction to Statistical Modelling
Select 2 units (24 credit points) from Unit Option List 2:	
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations
MXB232	Introduction to Operations Research
MXB241	Probability and Stochastic Modelling 2
MXB242	Regression and Design
MXB261	Modelling and Simulation Science

SUGGESTED PATHWAYS	
Code	Title

Statistical Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB107	Introduction to Statistical Modelling
MXB202	Advanced Calculus
MXB242	Regression and Design

Mathematical and Statistical Modelling	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB241	Probability and Stochastic Modelling 2

Applied Mathematics	
Code	Title
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations

Simulation Science	
Code	Title
MXB101	Probability and Stochastic Modelling

	1
MXB106	Linear Algebra and Differential Equations
MXB232	Introduction to Operations Research
MXB261	Modelling and Simulation Science

Computation, modelling and simulation	
Code	Title
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB261	Modelling and Simulation Science

Bachelor of Engineering (Honours) (Mechatronics)

Handbook

Year	2017
QUT code	EN01
CRICOS	084921G
Duration (full-time)	4 years
OP	9
Rank	81
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $32300 per year full-time (96 credit points)
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Associate Professor Jason Ford

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

Complementary Studies

You will have the opportunity to undertaken either a 2nd major or two minors.

Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Honours)(Mechatronics) must obtain at least 60 days of industrial experience/practice in an engineering environment as approved by the course coordinator.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Domestic Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points)
- Complementary studies: one x second major or two x minor (96 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

International Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: One (1) block of eight (8) major units 96cp plus eight (8) Honours level units 96cp (192 credit points)
- Complementary Studies: 1 x 2nd major or 2 x minor (96 credit points)

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x Advanced major units 60cp

Sample Structure

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
EGB111	Foundation of Engineering Design
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics

Bachelor of Engineering (Honours) (Mechatronics)

OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
MZB126	Engineering Computation
Plus 36cp from ONE of the Engineering Foundation Strands	

Please note that the highlighted units must be enrolled in the year and semester specified

The hlighted units are EGB242, CAB202, EGB345, EGH446, SEB400, EGH400-1 and EGH400-2

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 2, Semester 1	
EGB242	Signal Analysis
CAB202	Microprocessors and Digital Systems
EGB220	Mechatronics Design 1
2nd Major/Minor unit	
EGB211	Dynamics
2nd Major/Minor Unit	
Year 2, Semester 2	
EGB345	Control and Dynamic Systems
EGB320	Mechatronics Design 2
2nd Major/Minor unit	
EGB211	Dynamics
2nd Major/Minor unit	
Intermediate Electrical Unit Option	
2nd major/Minor unit	
Year 3, Semester 1	
EGH446	Autonomous Systems
EGB321	Dynamics of Machines
2nd Major/Minor unit	
EGB220	Mechatronics Design 1
OR	
EGH419	Mechatronics Design 3
2nd major/Minor unit	
Advanced Electrical Unit Option	
2nd Major/Minor unit	
Year 3, Semester 2	
EGH404	Research in Engineering Practice
EGB320	Mechatronics Design 2
EGH445	Modern Control
Intermediate/ Advanced Electrical Unit Option	
2nd Major/Minor unit	
EGH413	Advanced Dynamics
2nd Major/Minor unit	
Year 4, Semester 1	
EGH400-1	Research Project 1
EGH419	Mechatronics Design 3
2nd Major/Minor unit	
Advanced Electrical Unit Option	
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 4, Semester 2	
EGH400-2	Research Project 2
EGH413	Advanced Dynamics
2nd Major/Minor unit	
EGH445	Modern Control
2nd Major/Minor unit	
Advanced Electrical Unit Options	
2nd Major/Minor unit	

If you're intended to select Medical Engineering Major, please refer your first year study plan at Medical major 1st Year - July Entry

Code	Title
Year 1 - Semester 2	
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
EGB100	Engineering Sustainability and Professional Practice
EGB113	Energy in Engineering Systems
OR	
PVB101	Physics of the Very Large
EGB123	Civil Engineering Systems
OR	
Foundation Unit Option	
Year 2 - Semester 1	
MZB126	Engineering Computation
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
EGB120	Foundations of Electrical Engineering
OR	
Foundation Unit Option	

This is an example study plan for students on a relatively standard progression, however, depending on which units and second majors/minors you choose, you may need to deviate from that plan. Please contact sef.enquiry@qut.edu.au if you wish to discuss your study plan options.

Semesters

- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1

Code	Title
Year 2, Semester 2	
CAB202	Microprocessors and Digital Systems
EGB211	Dynamics
EGB242	Signal Analysis
2nd Major/Minor Unit	
Year 3, Semester 1	
EGB220	Mechatronics Design 1
EGB321	Dynamics of Machines
2nd Major/Minor Unit	
2nd Major/Minor Unit	
Year 3, Semester 2	
EGB345	Control and Dynamic Systems
EGB320	Mechatronics Design 2
EGH413	Advanced Dynamics
Intermediate Electrical Option Unit	
EGH413	Advanced Dynamics
2nd Major/Minor Unit	
Year 4, Semester 1	
EGH404	Research in Engineering Practice
EGH419	Mechatronics Design 3
EGH446	Autonomous Systems

Bachelor of Engineering (Honours) (Mechatronics)

2nd Major/Minor unit	
Year 4, Semester 2	
EGH400-1	Research Project 1
EGH445	Modern Control
EGH413	Advanced Dynamics
Intermediate Electrical Option Unit	
2nd Major/Minor Unit	
2nd Major/Minor Unit	
Year 5, Semester 1	
EGH400-2	Research Project 2
Advanced Electrical Option Unit	
2nd Major/Minor Unit	
2nd Major/Minor Unit	

Study Area Description
For more details and description on this minor please refer to the ***EN01 Complementary Studies*** at the Faculty's Student Zone under "Your Course" page.

This minor offers a lot of flexibility. Depending on your area of interest you can choose units focusing on **statistical science** (suggested pathway: MXB101, MXB107, MXB202, MXB242), **mathematical and statistical modelling** (suggested pathway: MXB101, MXB105, MXB221, MXB241**), applied mathematics** (suggested pathway: MXB105, MXB106, MXB202, MXB221), **simulation** (suggested pathway: MXB101, MXB106, MXB232, MXB261)**, computation and modelling** (suggested pathway: MXB103, MXB105, MXB221, MXB261).

In this list

Unit List	
Code	Title
Select 2 units (24 credit points) from Unit Option List 1:	
MXB101	Probability and Stochastic Modelling 1
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB107	Introduction to Statistical Modelling
Select 2 units (24 credit points) from Unit Option List 2:	
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations
MXB232	Introduction to Operations Research
MXB241	Probability and Stochastic Modelling 2
MXB242	Regression and Design
MXB261	Modelling and Simulation Science

SUGGESTED PATHWAYS	
Code	Title

Statistical Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB107	Introduction to Statistical Modelling
MXB202	Advanced Calculus
MXB242	Regression and Design

Mathematical and Statistical Modelling	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB241	Probability and Stochastic Modelling 2

Applied Mathematics	
Code	Title
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations

Simulation Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB106	Linear Algebra and Differential Equations
MXB232	Introduction to Operations Research
MXB261	Modelling and Simulation Science

Computation, modelling and simulation	
Code	Title
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB261	Modelling and Simulation Science

Bachelor of Engineering (Honours) (Medical)

Handbook

Year	2017
QUT code	EN01
CRICOS	084921G
Duration (full-time)	4 years
OP	9
Rank	81
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $32300 per year full-time (96 credit points)
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Dr Devakar Epari d.epari@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

Complementary Studies

You will have the opportunity to undertaken either a 2nd major or two minors.

Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Honours)(Medical) must obtain at least 60 days of industrial experience/practice in an engineering environment as approved by the course coordinator.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Domestic Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points)
- Complementary studies: one x second major or two x minor (96 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

International Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: One (1) block of eight (8) major units 96cp plus eight (8) Honours level units 96cp (192 credit points)
- Complementary Studies: 1 x 2nd major or 2 x minor (96 credit points)

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x Advanced major units 60cp

Sample Structure

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
EGB111	Foundation of Engineering Design
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics

Bachelor of Engineering (Honours) (Medical)

OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
MZB126	Engineering Computation
Plus 36cp from ONE of the Engineering Foundation Strands	

Code	Title
Year 1, Semester 2	
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
EGB100	Engineering Sustainability and Professional Practice
EGB113	Energy in Engineering Systems
OR	
PVB101	Physics of the Very Large
EGB123	Civil Engineering Systems
OR	
Foundation Unit Option	
Year 1, Semester 1	
MZB126	Engineering Computation
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
LSB131	Anatomy

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 2, Semester 1	
EGB211	Dynamics
EGB214	Materials and Manufacturing
EGB210	Fundamentals of Mechanical Design
LSB131	Anatomy
Year 2, Semester 2	
EGB314	Strength of Materials
LSB231	Physiology
2nd Major/Minor unit option	
2nd Major/Minor unit option	
Year 3, Semester 1	
EGB319	BioDesign
EGB323	Fluid Mechanics
EGH414	Stress Analysis
2nd Major/Minor unit option	
Year 3, Semester 2	
EGH418	Biomechanics
EGH424	Biofluids
EGH404	Research in Engineering Practice
2nd Major/Minor unit	
Year 4, Semester 1	
EGH438	Biomaterials
EGH400-1	Research Project 1
2nd Major/Minor unit option	
2nd Major/Minor unit option	
Year 4, Semester 2	
EGH400-2	Research Project 2
EGH435	Modelling and Simulation for Medical Engineers
2nd Major/Minor unit option	
2nd Major/Minor unit option	

Semesters

- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1

Code	Title
Year 2, Semester 2	
LSB231	Physiology
EGB120	Foundations of Electrical Engineering
Or Foundation Unit Option	
EGB211	Dynamics
2nd Major/Minor unit	
Year 3, Semester 1	
EGB210	Fundamentals of Mechanical Design
EGB323	Fluid Mechanics
EGB214	Materials and Manufacturing
2nd Major/Minor unit	
Year 3, Semester 2	
EGH418	Biomechanics
EGB314	Strength of Materials
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 4, Semester 1	
EGB319	BioDesign
EGH404	Research in Engineering Practice
EGH414	Stress Analysis
2nd Major/Minor unit	
Year 4, Semester 2	
EGH424	Biofluids
EGH435	Modelling and Simulation for Medical Engineers
EGH400-1	Research Project 1
2nd Major/Minor unit	
Year 5, Semester 1	
EGH438	Biomaterials
EGH400-2	Research Project 2
2nd Major/Minor unit	
2nd Major/Minor unit	

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 2, Semester 1	
EGB211	Dynamics
EGB214	Materials and Manufacturing
EGB210	Fundamentals of Mechanical Design
LSB131	Anatomy
Year 2, Semester 2	
EGB323	Fluid Mechanics
LSB231	Physiology
2nd Major/Minor unit option	
2nd Major/Minor unit option	
Year 3, Semester 1	
EGB314	Strength of Materials
EGB319	BioDesign
2nd Major/Minor unit option	
2nd Major/Minor unit option	
Year 3, Semester 2	
EGH418	Biomechanics
EGH424	Biofluids
EGH404	Research in Engineering Practice
2nd Major/Minor unit	
Year 4, Semester 1	
EGH400-1	Research Project 1
EGH438	Biomaterials
EGH414	Stress Analysis
2nd Major/Minor unit option	
Year 4, Semester 2	

EGH400-2	Research Project 2
EGH435	Modelling and Simulation for Medical Engineers
2nd Major/Minor unit option	
2nd Major/Minor unit option	

Semesters

Code	Title
Year 2, Semester 2	
LSB231	Physiology
EGB120	Foundations of Electrical Engineering
Or Foundation Unit Option	
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
EGB210	Fundamentals of Mechanical Design
EGB211	Dynamics
EGB323	Fluid Mechanics
2nd Major/Minor unit	
Year 3, Semester 2	
EGH418	Biomechanics
EGB314	Strength of Materials
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 4, Semester 1	
EGB319	BioDesign
EGB214	Materials and Manufacturing
EGH404	Research in Engineering Practice
EGH414	Stress Analysis
Year 4, Semester 2	
EGH424	Biofluids
EGH435	Modelling and Simulation for Medical Engineers
EGH400-1	Research Project 1
2nd Major/Minor unit	
Year 5, Semester 1	
EGH438	Biomaterials
EGH400-2	Research Project 2
2nd Major/Minor unit	
2nd Major/Minor unit	

Study Area Description
For more details and description on this minor please refer to the ***EN01 Complementary Studies*** at the Faculty's Student Zone under "Your Course" page.

This minor offers a lot of flexibility. Depending on your area of interest you can choose units focusing on **statistical science** (suggested pathway: MXB101, MXB107, MXB202, MXB242), **mathematical and statistical modelling** (suggested pathway: MXB101, MXB105, MXB221, MXB241**), applied mathematics** (suggested pathway: MXB105, MXB106, MXB202, MXB221), **simulation** (suggested pathway: MXB101, MXB106, MXB232, MXB261)**, computation and modelling** (suggested pathway: MXB103, MXB105, MXB221, MXB261).

In this list

Unit List	
Code	Title
Select 2 units (24 credit points) from Unit Option List 1:	
MXB101	Probability and Stochastic Modelling 1
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB107	Introduction to Statistical Modelling
Select 2 units (24 credit points) from Unit Option List 2:	
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations
MXB232	Introduction to Operations Research
MXB241	Probability and Stochastic Modelling 2
MXB242	Regression and Design
MXB261	Modelling and Simulation Science

SUGGESTED PATHWAYS	
Code	Title

Statistical Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB107	Introduction to Statistical Modelling
MXB202	Advanced Calculus
MXB242	Regression and Design

Mathematical and Statistical Modelling	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB241	Probability and Stochastic Modelling 2

Applied Mathematics	
Code	Title
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations

Simulation Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB106	Linear Algebra and Differential Equations
MXB232	Introduction to Operations Research
MXB261	Modelling and Simulation Science

Computation, modelling and simulation	
Code	Title
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB261	Modelling and Simulation Science

Bachelor of Engineering (Honours) (Process)

Handbook

Year	2017
QUT code	EN01
CRICOS	084921G
Duration (full-time)	4 years
OP	9
Rank	81
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $32300 per year full-time (96 credit points)
Total credit points	384
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Associate Professor Robert Speight

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

Complementary Studies

You will have the opportunity to undertaken either a 2nd major or two minors.

Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Honours)(Process) must obtain at least 60 days of industrial experience/practice in an engineering environment as approved by the course coordinator.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Domestic Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points)
- Complementary studies: one x second major or two x minor (96 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

International Course structure

To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:

- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: One (1) block of eight (8) major units 96cp plus eight (8) Honours level units 96cp (192 credit points)
- Complementary Studies: 1 x 2nd major or 2 x minor (96 credit points)

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x Advanced major units 60cp

Sample Structure

Code	Title
Year 1 - Semester 1	
EGB100	Engineering Sustainability and Professional Practice
EGB111	Foundation of Engineering Design
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics

Bachelor of Engineering (Honours) (Process)

OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
MZB126	Engineering Computation
Plus 36cp from ONE of the Engineering Foundation Strands	

If you're intended to select Medical Engineering Major, please refer your first year study plan at Medical major 1st Year - July Entry

Code	Title
Year 1 - Semester 2	
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
EGB100	Engineering Sustainability and Professional Practice
EGB113	Energy in Engineering Systems
OR	
PVB101	Physics of the Very Large
EGB123	Civil Engineering Systems
OR	
Foundation Unit Option	
Year 2 - Semester 1	
MZB126	Engineering Computation
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
EGB120	Foundations of Electrical Engineering
OR	
Foundation Unit Option	

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 2, Semester 1	
CVB220	Process Principles
CVB101	General Chemistry
EGB323	Fluid Mechanics
EGB363	Safety and Environmental Management
Year 2, Semester 2	
EGB322	Thermodynamics
Second Major or Minor Unit	
Second Major or Minor Unit	
Second Major or Minor Unit	
Year 3, Semester 1	
EGB361	Minerals and Minerals Processing
EGB260	Operations Management and Process Economics
EGB461	Unit Operations
Second Major or Minor Unit	
Year 3, Semester 2	
EGH411	Industrial Chemistry
EGH422	Advanced Thermodynamics
EGH404	Research in Engineering Practice
Second Major or Minor Unit	
Year 4, Semester 1	
EGH400-1	Research Project 1
EGH360	Plant and Process Design
Second Major or Minor Unit	
Second Major or Minor Unit	
Year 4, Semester 2	
EGH400-2	Research Project 2
EGH423	Fluids Dynamics
EGH460	Advanced Process Modelling
Second Major or Minor Unit	

Semesters

- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1

Code	Title
Year 2, Semester 2	
CVB101	General Chemistry
EGB322	Thermodynamics
2nd Major/Minor Unit	
2nd Major/Minor Unit	
Year 3, Semester 1	
CVB220	Process Principles
EGB323	Fluid Mechanics
EGB260	Operations Management and Process Economics
EGB363	Safety and Environmental Management
Year 3, Semester 2	
EGH411	Industrial Chemistry
EGH422	Advanced Thermodynamics
EGH404	Research in Engineering Practice
2nd Major/Minor unit	
Year 4, Semester 1	
EGB461	Unit Operations
EGH423	Fluids Dynamics
EGH411	Industrial Chemistry
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 4, Semester 1	
EGB461	Unit Operations
EGH404	Research in Engineering Practice
EGB361	Minerals and Minerals Processing
2nd Major/Minor unit	
Year 4, Semester 2	
EGH422	Advanced Thermodynamics
EGH400-1	Research Project 1
EGH460	Advanced Process Modelling
2nd Major/Minor unit	
Year 5, Semester 1	
EGH400-2	Research Project 2
EGH360	Plant and Process Design
2nd Major/Minor unit	
2nd Major/Minor unit	

Semesters

- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 2, Semester 1	
CVB101	General Chemistry
EGB211	Dynamics
EGB260	Operations Management and Process Economics
EGB363	Safety and Environmental Management
Year 2, Semester 2	
EGB322	Thermodynamics
EGB323	Fluid Mechanics
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
EGB361	Minerals and Minerals Processing
EGB461	Unit Operations
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 2	
EGH411	Industrial Chemistry
EGH422	Advanced Thermodynamics

Bachelor of Engineering (Honours) (Process)

EGH404	Research in Engineering Practice
2nd Major/Minor unit	
Year 4, Semester 1	
EGH400-1	Research Project 1
EGH360	Plant and Process Design
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 4, Semester 2	
EGH400-2	Research Project 2
EGH423	Fluids Dynamics
EGH460	Advanced Process Modelling
2nd Major/Minor unit	

Semesters

- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1

Code	Title
Year 2, Semester 2	
CVB101	General Chemistry
EGB211	Dynamics
EGB323	Fluid Mechanics
2nd Major/Minor Unit	
Year 3, Semester 1	
EGB260	Operations Management and Process Economics
EGB361	Minerals and Minerals Processing
EGB363	Safety and Environmental Management
2nd Major/Minor unit	
Year 3, Semester 2	
EGB322	Thermodynamics
EGH411	Industrial Chemistry
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 4, Semester 1	
EGB461	Unit Operations
EGH404	Research in Engineering Practice
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 4, Semester 2	
EGH422	Advanced Thermodynamics
EGH400-1	Research Project 1
EGH423	Fluids Dynamics
EGH460	Advanced Process Modelling
Year 5, Semester 1	
EGH400-2	Research Project 2
EGH360	Plant and Process Design
2nd Major/Minor unit	
2nd Major/Minor unit	

Study Area Description
For more details and description on this minor please refer to the ***EN01 Complementary Studies*** at the Faculty's Student Zone under "Your Course" page.

This minor offers a lot of flexibility. Depending on your area of interest you can choose units focusing on **statistical science** (suggested pathway: MXB101, MXB107, MXB202, MXB242), **mathematical and statistical modelling** (suggested pathway: MXB101, MXB105, MXB221, MXB241**), applied mathematics** (suggested pathway: MXB105, MXB106, MXB202, MXB221), **simulation** (suggested pathway: MXB101, MXB106, MXB232, MXB261)**, computation and modelling** (suggested pathway: MXB103, MXB105, MXB221, MXB261).

In this list

Unit List	
Code	Title
Select 2 units (24 credit points) from Unit Option List 1:	
MXB101	Probability and Stochastic Modelling 1
MXB103	Introductory Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB107	Introduction to Statistical Modelling
Select 2 units (24 credit points) from Unit Option List 2:	
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations
MXB232	Introduction to Operations Research
MXB241	Probability and Stochastic Modelling 2
MXB242	Regression and Design
MXB261	Modelling and Simulation Science

SUGGESTED PATHWAYS	
Code	Title

Statistical Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB107	Introduction to Statistical Modelling
MXB202	Advanced Calculus
MXB242	Regression and Design

Mathematical and Statistical Modelling	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB241	Probability and Stochastic Modelling 2

Applied Mathematics	
Code	Title
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
MXB202	Advanced Calculus
MXB221	Ordinary Differential Equations

Simulation Science	
Code	Title
MXB101	Probability and Stochastic Modelling 1
MXB106	Linear Algebra and Differential Equations
MXB232	Introduction to Operations Research
MXB261	Modelling and Simulation Science

Computation, modelling and simulation	
Code	Title
MXB103	Introductory

	Computational Mathematics
MXB105	Calculus of One and Two Variables
MXB221	Ordinary Differential Equations
MXB261	Modelling and Simulation Science

Bachelor of Information Technology (Honours)

Handbook

Year	2017
QUT code	IN10
CRICOS	017323G
Duration (full-time)	1 year
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $31000 per year full-time (96 credit points)
Total credit points	96
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Course Coordinator	Dr Dimitri Perrin; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	

Domestic Entry requirements

Academic entry requirements

A completed recognised bachelor degree in information technology or equivalent with a minimum grade point average of 4.5 (on QUT's 7-point scale), completed within the last 5 years.

International Entry requirements

Academic entry requirements

A completed recognised bachelor degree in information technology or equivalent with a minimum grade point average of 4.5 (on QUT's 7-point scale), completed within the last 5 years.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Overview

The Bachelor of Information Technology (Honours) allows you to further develop specific areas of expertise in information technology and related discipline areas and is a pathway into research higher degree study. You will develop high level skills in a specific discipline area and acquire research skills appropriate to your discipline. You will apply analytic processes involving abstraction and modelling to solve complex problems and / or develop new opportunities through the use of information technology and will apply a deep understanding of the discipline to accurately assess its impact on individuals, organisations and society. You will receive individual supervision from an experienced researcher to complete a project. This project allows you to demonstrate your advanced academic capability and culminates in the completion of an honours thesis.

Course Design

Requirements for the completion of IN10 Bachelor of Information Technology (Honours) are as follows:

CORE: Foundations of Research unit and Reviewing the Field unit

OPTION: A choice of either the *Expanded Research* Strand or the *Extended Coursework* Strand

Each strand comprises of coursework and a major research project supervised by QUT staff.

Career Outcomes

Information technology is an integral part of all commercial, industrial, government, social and personal activities. Graduates from the honours program have the opportunity to achieve the highest levels of their profession. Career opportunities include roles such as web developer, database manager, network administrator, electronic commerce developer, data communications specialist, software engineer, systems programmer, computer scientist, systems analyst or programmer. Additionally, graduates may evolve into domain experts working as chief technology officers, chief information officers, managers, executives, business analysts and entrepreneurs. Graduates of this degree may go into academic and research careers.

Professional Recognition

Graduates of the Bachelor of Information Technology (Honours) meet the knowledge requirement for admission to the Australian Computer Society (ACS).

Pathways to Further Study

The QUT Bachelor of Information Technology (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates may be eligible to apply to the Doctor of Philosophy within the Science and Engineering Faculty.

Domestic Course structure

You'll need to choose between either the expanded research or extended coursework options.

International Course structure

You'll need to choose between either the expanded research or extended coursework options.

Sample Structure

Semesters

- Semester 1
- Semester 2
- Information Technology Honours Unit Options (Expanded Research)

Bachelor of Information Technology (Honours)

Code	Title
Semester 1	
SEB400	Foundations of Research
SEB402	Project Proposal
SEB403-1	Honours Research Project-1
SEB410	Advanced Topic 1
(SEB410 or select 1 unit from Information Technology Honours Unit Options)	
Semester 2	
SEB411	Advanced Topic 2
(SEB411 or Select 12cp (1 Unit) from Information Technology Honours Unit Options)	
SEB403-2	Honours Research Project-2
SEB403-3	Honours Research Project-3
SEB403-4	Honours Research Project-4
Information Technology Honours Unit Options (Expanded Research)	
Select 24cp (2 units) from:	
IAB450	Enterprise Systems Management
IAB451	Business in the Cloud
IFN515	Fundamentals of Business Process Management
IFN611	Information Retrieval
IFN612	Emerging Technologies for Information Practice
IFN641	Advanced Network Management
IFN643	Computer System Security
IFN645	Data Mining Technology and Applications
IFN652	Enterprise Business Process Management
IFN660	Programming Language Theory
IFN661	Mobile and Pervasive Systems
IFN662	Enterprise Systems and Applications
IFN680	Advanced Topics in Artificial Intelligence
IFN690	Advanced User Centred Design
IGB321	Immersive Game Level Design
IGB381	Game Engine Technology
[INB382 replaced by IGB381 in 2017]	
IGB383	AI for Games
SEB410	Advanced Topic 1
SEB411	Advanced Topic 2
PLEASE NOTE: The following units which have been discontinued will also count as IT Honours Unit Options:	
INN282 Games Level Design (disc 31/12/2016)	

Semesters

- Semester 1
- Semester 2
- Information Technology Honours Unit Options (Extended Coursework)

Code	Title
Semester 1	
SEB400	Foundations of Research
SEB410	Advanced Topic 1
SEB411	Advanced Topic 2
SEB412	Advanced Topic 3
OR	
Select 36cp (3 Units) from Information Technology Honours Unit Options	
Semester 2	
SEB404-1	Honours Research Project-1
SEB404-2	Honours Research Project-2
SEB404-3	Honours Research Project-3
SEB413	Advanced Topic 4
Information Technology Honours Unit Options (Extended Coursework)	
Select 36cp (3 units) from:	
IAB450	Enterprise Systems Management
IAB451	Business in the Cloud
IFN515	Fundamentals of Business Process Management
IFN611	Information Retrieval
IFN612	Emerging Technologies for Information Practice
IFN641	Advanced Network Management
IFN643	Computer System Security
IFN645	Data Mining Technology and Applications
IFN652	Enterprise Business Process Management
IFN660	Programming Language Theory
IFN661	Mobile and Pervasive Systems
IFN662	Enterprise Systems and Applications
IFN680	Advanced Topics in Artificial Intelligence
IFN690	Advanced User Centred Design
IGB321	Immersive Game Level Design
IGB381	Game Engine Technology
[INB382 replaced by IGB381 in 2017]	
IGB383	AI for Games
SEB410	Advanced Topic 1
SEB411	Advanced Topic 2
SEB412	Advanced Topic 3
PLEASE NOTE: The following units which have been discontinued will also count as IT Honours Unit Options:	
INN282 Games Level Design (disc 31/12/2016)	

Bachelor of Business/Bachelor of Engineering (Honours)

Handbook

Year	2017
QUT code	IX59
CRICOS	084925D
Duration (full-time)	5 years
OP	8
Rank	84
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9800 per year full-time (96 credit points)
International fee (indicative)	2017: $30200 per year full-time (96 credit points)
Total credit points	480
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Director of Studies, QUT Business School; email: bus@qut.edu.au; or, SEF Enquiries - email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended Study: Chemistry, Maths C, Physics

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended Study: Chemistry, Maths C, Physics

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Domestic Course structure

To graduate with a Bachelor of Engineering (Honours) in IX59, students are required to complete 288 credit points of course units, as outlined below:

- First year: Four (4) core units 48cp + two (2) discipline foundation units 24cp + two (2) option units 24cp (96 credit points)
- Major: One (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points)

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp

To complete the Bachelor of Business students will complete 192 credit points of course units, as outlined below:

- eight Business School core units (96 credit points) *
- eight major core units (96 credit points)

*Accounting major students complete six business core units and 10 accountancy major units to allow them to complete professional requirements.

International Course structure

To graduate with a Bachelor of Engineering (Honours) in IX59, students are required to complete 288 credit points of course units, as outlined below:

- First year: Four (4) core units 48cp + two (2) discipline foundation units 24cp + two (2) option units 24cp (96 credit points)
- Major: One (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points)

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp

To complete the Bachelor of Business students will complete 192 credit points of course units, as outlined below:

- eight Business School core units (96 credit points) *
- eight major core units (96 credit points)

*Accounting major students complete six business core units and 10 accountancy major units to allow them to complete professional requirements.

Sample Structure

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4, Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering

Bachelor of Business/Bachelor of Engineering (Honours)

	Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
Foundation Unit Option	
EGB123	Civil Engineering Systems
Year 3 - Semester 1	
EGB270	Civil Engineering Materials
EGB272	Traffic and Transport Engineering
Year 3 - Semester 2	
EGB273	Principles of Construction
EGB373	Geotechnical Engineering
Year 4, Semester 1	
EGB275	Structural Mechanics
EGB371	Engineering Hydraulics
Year 4 - Semester 2	
EGB376	Steel Design
EGH471	Advanced Water Engineering
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
EGB375	Design of Concrete Structures
EGH473	Advanced Geotechnical Engineering
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH472	Advanced Highway and Pavement Engineering
EGH475	Advanced Concrete Structures
EGH479	Advances in Civil Engineering Practice

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Intermediate Software Option Unit
- Advanced Electrical Option Unit

- Advanced Software Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB242	Signal Analysis
CAB202	Microprocessors and Digital Systems
Year 3 - Semester 2	
CAB201	Programming Principles
Computer Science students must take CAB201 in your Computer and Software Systems major. Please contact Science and Engineering Faculty to have 12 credit points added to your Computer Science Unit Options List.	
Intermediate Electrical Option Unit	
Year 4 - Semester 1	
EGB240	Electronic Design
Intermediate Software Option Unit	
For students with Computer Science Major: CAB301 and CAB302 are core to the Computer Science Major. Please contact Science and Engineering Faculty to be provided a list of additional units you can select from.	
Year 4 - Semester 2	
CAB403	Systems Programming
Intermediate Electrical or Software Option Unit	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
Advanced Electrical or Software Option Unit	
EGH400-1	Research Project 1
EGH456	Embedded Systems
Year 5 - Semester 2	
EGH400-2	Research Project 2
Advanced Software Option Unit	
Advanced Electrical Option Unit	
EGH455	Advanced Systems Design
Intermediate Electrical Option Unit	
EGB348	Electronics
EGB345	Control and Dynamic Systems
EGB342	Telecommunications and Signal Processing
Intermediate Software Option Unit	
CAB302	Software Development
CAB301	Algorithms and Complexity
Advanced Electrical Option Unit	
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics
Advanced Software Option Unit	
CAB432	Cloud Computing
CAB401	High Performance and Parallel Computing

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Advanced Electrical Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of

Bachelor of Business/Bachelor of Engineering (Honours)

	Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
CAB202	Microprocessors and Digital Systems
Year 3 - Semester 1	
EGB240	Electronic Design
EGB241	Electromagnetics and Machines
Year 3 - Semester 2	
EGB242	Signal Analysis
Intermediate Electrical Option Unit (1)	
Year 4 - Semester 1	
EGB340	Design and Practice
Foundation Unit Option	
Year 4 - Semester 2	
Intermediate Electrical Option Unit (2)	
Intermediate Electrical Option Unit (3)	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
Advanced Electrical Option Unit (1)	
Advanced Electrical Option Unit (2)	
Year 5 - Semester 2	
EGH400-2	Research Project 2
Advanced Electrical Option Unit (3)	
Advanced Electrical Option Unit (4)	
Advanced Electrical Option Unit (5)	
Intermediate Electrical Option Unit	
EGB341	Energy Supply and Delivery
EGB342	Telecommunications and Signal Processing
EGB345	Control and Dynamic Systems
EGB348	Electronics
Advanced Electrical Option Unit	
EGH440	Power Systems Analysis
EGH441	Power System Modelling
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Advanced Electrical Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
CAB202	Microprocessors and Digital Systems
EGB241	Electromagnetics and Machines
Year 3 - Semester 2	
EGB242	Signal Analysis
Intermediate Electrical Option Unit (1)	
Year 4 - Semester 1	
EGB340	Design and Practice
EGB240	Electronic Design
Year 4 - Semester 2	
Intermediate Electrical Option Unit (2)	
Intermediate Electrical Option Unit (3)	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
Advanced Electrical Option Unit (1)	
Advanced Electrical Option Unit (2)	
Year 5 - Semester 2	
EGH400-2	Research Project 2
Advanced Electrical Option Unit (3)	
Advanced Electrical Option Unit (4)	
Advanced Electrical Option Unit (5)	
Intermediate Electrical Option Unit	
EGB341	Energy Supply and Delivery
EGB342	Telecommunications and Signal Processing
EGB345	Control and Dynamic Systems
EGB348	Electronics
Advanced Electrical Option Unit	
EGH440	Power Systems Analysis
EGH441	Power System Modelling
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical and Aerospace Option Units
- Advanced Electrical and Aerospace Option Units

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics

Bachelor of Business/Bachelor of Engineering (Honours)

EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
CAB202	Microprocessors and Digital Systems
EGB240	Electronic Design
Year 3 - Semester 2	
EGB242	Signal Analysis
Intermediate Electrical Option Unit	
Year 4 - Semester 1	
EGB349	Systems Engineering and Design Project
EGB243	Aircraft Systems and Flight
Year 4 - Semester 2	
EGB346	Unmanned Aircraft Systems
EGB345	Control and Dynamic Systems
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH446	Autonomous Systems
EGH400-1	Research Project 1
Advanced Electrical Option Unit	
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH445	Modern Control
EGH450	Advanced Unmanned Aircraft Systems
Advanced Electrical Option Unit	
Intermediate Electrical and Aerospace Option Units	
CAB403	Systems Programming
EGB342	Telecommunications and Signal Processing
EGB348	Electronics
Advanced Electrical and Aerospace Option Units	
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH448	Power Electronics
EGH449	Advanced Electronics
EGH455	Advanced Systems Design
EGH456	Embedded Systems

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB210	Fundamentals of Mechanical Design
EGB214	Materials and Manufacturing
Year 3 - Semester 2	
EGB211	Dynamics
EGB314	Strength of Materials
Year 4 - Semester 1	
EGB321	Dynamics of Machines
EGB323	Fluid Mechanics
Year 4 - Semester 2	
EGB322	Thermodynamics
EGH404	Research in Engineering Practice
Year 5 - Semester 1	
EGB316	Design of Machine Elements
EGH400-1	Research Project 1
EGH414	Stress Analysis
EGH421	Vibration and Control
Year 5 - Semester 2	
EGH400-2	Research Project 2

EGH420	Mechanical Systems Design
EGH422	Advanced Thermodynamics
EGH423	Fluids Dynamics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Intermediate Mechanical Option Unit
- Advanced Electrical Option Unit
- Advanced Mechanical Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB242	Signal Analysis
EGB211	Dynamics
Year 3 - Semester 2	
EGB345	Control and Dynamic Systems
CAB202	Microprocessors and Digital Systems
Year 4 - Semester 1	
EGB220	Mechatronics Design 1
EGB321	Dynamics of Machines
Year 4 - Semester 2	
EGB320	Mechatronics Design 2

Bachelor of Business/Bachelor of Engineering (Honours)

Intermediate Electrical Option Unit	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
EGH419	Mechatronics Design 3
EGH446	Autonomous Systems
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH445	Modern Control
EGH413	Advanced Dynamics
Advanced Electrical Option Unit	
Intermediate Electrical Option Unit	
CAB403	Systems Programming
EGB348	Electronics
Intermediate Mechanical Option Unit	
EGB321	Dynamics of Machines
EGB323	Fluid Mechanics
Advanced Electrical Option Unit	
EGH456	Embedded Systems
EGH455	Advanced Systems Design
EGH448	Power Electronics
EGH449	Advanced Electronics
Advanced Mechanical Option Unit	
EGH413	Advanced Dynamics
EGH423	Fluids Dynamics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB210	Fundamentals of Mechanical Design
LSB131	Anatomy
Year 3 - Semester 2	
EGB211	Dynamics
LSB231	Physiology
Year 4 - Semester 1	
EGB214	Materials and Manufacturing
EGB323	Fluid Mechanics
Year 4 - Semester 2	
EGB314	Strength of Materials
EGH404	Research in Engineering Practice
Year 5 - Semester 1	
EGB319	BioDesign
EGH400-1	Research Project 1
EGH414	Stress Analysis
EGH418	Biomechanics
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH424	Biofluids
EGH435	Modelling and Simulation for Medical Engineers
EGH438	Biomaterials

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
CVB220	Process Principles
EGB363	Safety and Environmental Management
Year 3 - Semester 2	
CVB101	General Chemistry
EGB322	Thermodynamics
Year 4 - Semester 1	
EGB260	Operations Management and Process Economics
EGB323	Fluid Mechanics
Year 4 - Semester 2	
EGH404	Research in Engineering Practice
EGH423	Fluids Dynamics
Year 5 - Semester 1	
EGB361	Minerals and Minerals Processing
EGH400-1	Research Project 1
Plant and Process Design	
Unit Operation	
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH411	Industrial Chemistry
EGH422	Advanced Thermodynamics
EGH460	Advanced Process Modelling

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
BSB110	Accounting
BSB115	Management
Year 1 Semester 2	
BSB111	Business Law and

Bachelor of Business/Bachelor of Engineering (Honours)

	Ethics
BSB124	Working in Business
Year 2 Semester 1	
AYB200	Financial Accounting
AYB225	Management Accounting
Year 2 Semester 2	
AYB221	Accounting Systems and Technologies
BSB113	Economics
Year 3 Semester 1	
EFB210	Finance 1
BSB126	Marketing
Year 3 Semester 2	
AYB321	Strategic Management Accounting
AYB340	Company Accounting
Year 4 Semester 1	
AYB219	Taxation Law
AYB230	Corporations Law
Year 4 Semester 2	
AYB301	Audit and Assurance
AYB311	Financial Accounting Issues

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
BSB113	Economics
BSB126	Marketing
Year 1 Semester 2	
BSB110	Accounting
BSB115	Management
Year 2 Semester 1	
AMB220	Advertising Theory and Practice
BSB124	Working in Business
Year 2 Semester 2	
AMB200	Consumer Behaviour
AMB201	Marketing and Audience Research
Year 3 Semester 1	
BSB111	Business Law and Ethics
BSB119	Global Business
Year 3 Semester 2	
AMB318	Advertising Copywriting
AMB319	Media Planning
Year 4 Semester 1	
AMB320	Advertising Management
AMB330	Digital Portfolio
Year 4 Semester 2	
AMB339	Advertising Campaigns
MGB227	Entrepreneurship

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2
- Applied Economics Unit Options
- Quantitative Economics Unit Options

Code	Title
Year 1 Semester 1	
BSB113	Economics
BSB115	Management
Year 1 Semester 2	
BSB110	Accounting
EFB223	Economics 2
Year 2 Semester 1	
EFB330	Intermediate Macroeconomics
EFB331	Intermediate Microeconomics
Year 2 Semester 2	
BSB111	Business Law and Ethics
Choose an elective from the Applied Economics or Quantitative Economics Unit Option lists	
Year 3 Semester 1	
MGB227	Entrepreneurship
Choose an elective from the Applied Economics or Quantitative Economics Unit Option lists	
Year 3 Semester 2	
BSB119	Global Business
Choose an elective from the Applied Economics or Quantitative Economics Unit Option lists	
Year 4 Semester 1	
BSB124	Working in Business
Choose an elective from the Applied Economics or Quantitative Economics Unit Option lists	
Year 4 Semester 2	

EFB338	Contemporary Application of Economic Theory
BSB126	Marketing
Applied Economics Unit Options	
EFB201	Financial Markets
EFB225	Economics for the Real World
EFB226	Environmental Economics and Policy
EFB336	International Economics
Quantitative Economics Unit Options	
EFB222	Introduction to Applied Econometrics
EFB332	Applied Behavioural Economics
EFB333	Applied Econometrics
EFB337	Game Theory and Applications

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
BSB113	Economics
BSB115	Management
Year 1 Semester 2	
BSB124	Working in Business
BSB126	Marketing
Year 2 Semester 1	
BSB110	Accounting
MGB227	Entrepreneurship
Year 2 Semester 2	
EFB201	Financial Markets
EFB210	Finance 1
Year 3 Semester 1	
BSB111	Business Law and Ethics
EFB335	Investments
Year 3 Semester 2	
EFB343	Corporate Finance
EFB344	Risk Management and Derivatives
Year 4 Semester 1	
EFB223	Economics 2
EFB312	International Finance
Year 4 Semester 2	

Bachelor of Business/Bachelor of Engineering (Honours)

BSB119	Global Business
EFB360	Finance Capstone

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
BSB113	Economics
BSB115	Management
Year 1 Semester 2	
BSB111	Business Law and Ethics
BSB124	Working in Business
Year 2 Semester 1	
MGB227	Entrepreneurship
MGB200	Managing People
Year 2 Semester 2	
MGB207	Human Resource Issues and Strategy
BSB110	Accounting
Year 3 Semester 1	
MGB220	Human Resource Decision Making
MGB331	Learning and Development in Organisations
Year 3 Semester 2	
MGB201	Contemporary Employment Relations
BSB126	Marketing
Year 4 Semester 1	
BSB119	Global Business
MGB339	Performance and Reward
Year 4 Semester 2	
MGB320	Recruitment and Selection
MGB370	Personal and Professional Development

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
BSB119	Global Business
BSB126	Marketing
Year 1 Semester 2	
BSB110	Accounting
BSB115	Management
Year 2 Semester 1	
BSB113	Economics
MGB227	Entrepreneurship
Year 2 Semester 2	
AMB210	Importing and Exporting
EFB240	Finance for International Business
Year 3 Semester 1	
BSB111	Business Law and Ethics
BSB124	Working in Business
Year 3 Semester 2	
AMB303	International Logistics
MGB225	Intercultural Communication and Negotiation Skills
Year 4 Semester 1	
AMB336	International Marketing
AYB227	International Accounting
Year 4 Semester 2	
AMB369	International Business Strategy
MGB340	International Business in the Asia-Pacific

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
BSB113	Economics
BSB115	Management
Year 1 Semester 2	
BSB111	Business Law and Ethics
BSB126	Marketing
Year 2 Semester 1	
BSB110	Accounting
BSB119	Global Business
Year 2 Semester 2	
MGB200	Managing People
MGB227	Entrepreneurship

Year 3 Semester 1	
MGB226	Innovation, Knowledge and Creativity
If you are completing the Management stream:	
MGB210	Managing Operations
If you are completing the Entrepreneurship stream:	
MGB201	Contemporary Employment Relations
MGB210	Managing Operations
Year 3 Semester 2	
MGB225	Intercultural Communication and Negotiation Skills
MGB335	Managing Projects
MGB324	Managing Business Growth
Year 4 Semester 1	
BSB124	Working in Business
MGB341	Managing Risk
Year 4 Semester 2	
MGB309	Managing Strategically
MGB310	Managing Sustainable Change
MGB338	Workplace Learning

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
BSB113	Economics
BSB126	Marketing
Year 1 Semester 2	
BSB111	Business Law and Ethics
BSB115	Management
Year 2 Semester 1	
BSB124	Working in Business
BSB110	Accounting
Year 2 Semester 2	
AMB201	Marketing and Audience Research
AMB240	Marketing Planning and Management
Year 3 Semester 1	
AMB200	Consumer Behaviour
BSB119	Global Business
Year 3 Semester 2	

AMB202	Integrated Marketing Communication
AMB330	Digital Portfolio
Year 4 Semester 1	
AMB340	Services Marketing
MGB227	Entrepreneurship
Year 4 Semester 2	
AMB336	International Marketing
AMB359	Strategic Marketing

Semesters

Code	Title
Year 1 Semester 1	
BSB119	Global Business
BSB126	Marketing
Year 1 Semester 2	
BSB110	Accounting
BSB115	Management
Year 2 Semester 1	
AMB201	Marketing and Audience Research
BSB113	Economics
Year 2 Semester 2	
AMB263	Introduction to Public Relations
AMB264	Public Relations Techniques
Year 3 Semester 1	
AMB373	Issues, Stakeholders and Reputation
BSB124	Working in Business
Year 3 Semester 2	
AMB372	Public Relations Planning
MGB227	Entrepreneurship
Year 4 Semester 1	
AMB374	Global Public Relations Cases
BSB111	Business Law and Ethics
Year 4 Semester 2	
AMB375	Public Relations Management
AMB379	Public Relations Campaigns

Bachelor of Science/Bachelor of Laws (Honours)

Handbook

Year	2017
QUT code	IX80
CRICOS	083029M
Duration (full-time)	5.5 years
OP	5
Rank	91
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9800 per year full-time (96 credit points)
International fee (indicative)	2017: $29900 per year full-time (96 credit points)
Total credit points	528
Credit points full-time sem.	48
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Graham Johnson (Science); ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au; Jennifer Yule (Law); ph: +61 7 3138 2707; Email: law_enquiries@qut.edu.au
Discipline Coordinator	Jennifer Yule (Law); Dr Marion Bateson (Biological Science); Dr James Blinco (Chemistry - previously Dr Sara Couperthwaite in SEM-1 2017); Dr Luke Nothdurft (Earth Science); Dr Andrew Baker (Environmental Science); and Prof Nunzio Motto (Physics - previously Dr Jamie Trapp in SEM-1 2017). Science: +61 7 3138 8822; Law: +61 7 3138 2707 Science: sef.enquiry@qut.edu.au; Law: law_enquiries@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

Recommended Study: At least one of Chemistry, Physics, Biology, Geography, Earth Science or Maths C. We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended Study: At least one of Chemistry, Physics, Biology, Geography, Earth Science or Maths C.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Structure Information

Students are required to complete 528 credit points, comprised of 192 credit points for the Bachelor of Science program and 336 credit points for the Bachelor of Laws program. You will study science and law units in your first four years and for the remainder of this course you will concentrate on law studies.

Under the Science component students will complete 16 units in total. Students will choose any of the following science majors that are offered in the Bachelor of Science (ST01) course: biology, chemistry, earth science, environmental science and physics.

Under the Law component students will complete 336 credit points of core units and a mixture of Introductory, General and Advanced Electives. Students may select up to 48 credit points of non-law electives or 48 credit points of a University-wide minor in place of four of the General Electives. Successful completion of a minor will be recognised on the Academic Record and / or the Australian Higher Education Graduation Statement.

Total Law credit points: 336
Total credit points for core units: 240
Total credit points for elective units: 96
Honours Level Units

96 credit points of Honours units listed below will be used to determine the Honours Levels of the LLB (Hons):
LLH201 Legal Research,
LLH206 Administrative Law,
LLH302 Ethics and the Legal Profession,
LLH305 Corporate Law,
LLH401 Legal Research Capstone (24 cps) and
two Advanced Electives in law.

Professional Recognition

The QUT LLB (Hons) is an approved degree for the purposes of the Legal Practitioners Admission Rules. Accordingly, it enables graduates to satisfy the academic requirements for admission to practise as a solicitor and/or barrister in all Australian states and territories.
Graduates will satisfy the requirements for membership in the relevant professional body for their science major.

Admission to practice

If, at the end of your degree, you wish to become a legal practitioner, you will need to complete further practical legal training (PLT). QUT also offers PLT in the form of the Graduate Diploma in Legal Practice.

Career Outcomes

As a graduate, you may enter legal practice with an education in both the content and process of science and data analysis that will enable you to deal with the complexities of litigation that have a scientific and technological dimension, such as inventions, trade secrets, quantitative evidence, and constitutional disputes giving rise to environmental issues. On the other hand, you may choose to follow a career path in the sciences, enhancing your opportunities in a particular discipline such as environmental science or biotechnology through your knowledge of the law.

You will graduate with specialised knowledge of cutting-edge technologies

and extensive practical experience using the latest techniques. You have a broad range of options to choose from and the flexibility to create your own personal science degree program.

In developing the LLB (Hons) the Faculty recognises that graduates are increasingly seeking a broad range of careers including, but not limited to, legal practice. The defining nature of the QUT LLB (Hons) is its real-world applied nature which will equip you with advanced knowledge and research and other skills and that meet the needs of not only the legal profession, but also government, community organisations, business and industry.

The LLB (Hons) provides students with an opportunity to advance their knowledge of law in specialised areas through the elective units offered as part of the course. The elective units allow you to study areas of the law that match your career aspirations.
Career opportunities include working in general legal practice, specialist legal practice, government departments and employment in private enterprise.

Non-standard attendance

Field work is a requirement in some areas of science.

Deferment

Domestic students can defer their offer in this course for one year. In exceptional circumstances up to 12 months of additional deferment may be granted.

Find out more at deferment

Domestic Course structure

Students are required to complete 528 credit points, comprised of 192 credit points for the Bachelor of Science program and 336 credit points for the Bachelor of Laws program. You will study science and law units in your first four years and for the remainder of this course you will concentrate on law studies.

Under the Science component students will complete 16 units in total. Students will choose any of the following science majors that are offered in the Bachelor of Science (ST01) course: biology, chemistry, earth science, environmental science and physics.

Under the Law component students will complete 336 credit points of core units and a mixture of Introductory, General and Advanced Electives. Students may select up to 48 credit points of non-law electives or 48 credit points of a University-wide minor in place of four of the General Electives. Successful completion of a minor will be recognised on the Academic Record and / or the Australian Higher Education Graduation Statement.

Total Law credit points: 336
Total credit points for core units: 240
Total credit points for elective units: 96

Honours Level Units

96 credit points of Honours units listed below will be used to determine the Honours Levels of the LLB (Hons):
LLH201 Legal Research,
LLH206 Administrative Law,
LLH302 Ethics and the Legal Profession,
LLH305 Corporate Law,
LLH401 Legal Research Capstone (24 cps) and
two Advanced Electives in law.

International Course structure

Students are required to complete 528 credit points, comprised of 192 credit points for the Bachelor of Science program and 336 credit points for the Bachelor of Laws program. You will study science and law units in your first four years and for the remainder of this course you will concentrate on law studies.

Under the Science component students will complete 16 units in total. Students will choose any of the following science majors that are offered in the Bachelor of Science.(ST01) course: biology, chemistry, earth science, environmental science and physics.

Under the Law component students will complete 336 credit points of core units and a mixture of Introductory, General and Advanced Electives. Students may select up to 48 credit points of non-law electives or 48 credit points of a University-wide minor in place of four of the General Electives. Successful completion of a minor will be recognised on the Academic Record and / or the Australian Higher Education Graduation Statement.

Total Law credit points: 336
Total credit points for core units: 240
Total credit points for elective units: 96

Honours Level Units

96 credit points of Honours units listed below will be used to determine the Honours Levels of the LLB (Hons):
LLH201 Legal Research,
LLH206 Administrative Law,
LLH302 Ethics and the Legal Profession,
LLH305 Corporate Law,
LLH401 Legal Research Capstone (24 cps) and
two Advanced Electives in law.

Sample Structure

The new Bachelor of Laws (Honours) is effective from semester 1, 2015. As a result of this new course, some of the unit codes have changed to LLBxxx. Your study plan will be updated to reflect these changes. For information regarding these changes, please refer to the QUT Real Law (LAW_Real_Law) Blackboard site under My Community on your blackboard homepage or contact law_enquiries@qut.edu.au for further information.

Before enrolling in an option (elective) unit, you must ensure you have met any pre- or co-requisite requirements. You can check this by referring to the unit outlines on QUT Virtual.

Semesters

Code	Title
Year 1 Semester 1	
LLB101	Introduction to Law
LLB102	Torts
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 1 Semester 2	
LLB105	Legal Problems and Communication
LLB106	Criminal Law
Science Core Unit Option	
Science Core Unit Option	
Year 2 Semester 1	
LLB103	Dispute Resolution
LLB104	Contemporary Law and Justice
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
Year 2 Semester 2	
LLH201	Legal Research
Introductory Law Elective	

Bachelor of Science/Bachelor of Laws (Honours)

Science Major Unit	
Science Major Unit	
Year 3 Semester 1	
LLB202	Contract Law
LLB203	Constitutional Law
Science Major Unit	
Science Major Unit	
Year 3 Semester 2	
LLB204	Commercial and Personal Property Law
LLB205	Equity and Trusts
Science Major Unit	
Science Major Unit	
Year 4 Semester 1	
LLB301	Real Property Law
General Law Elective	
Science Major Unit	
Science Major Unit	
Year 4 Semester 2	
LLB303	Evidence
LLH206	Administrative Law
Science Major Unit	
Science Major Unit	
Year 5 Semester 1	
LLH302	Ethics and the Legal Profession
LLB304	Commercial Remedies
General Law Elective or Non-law Elective or University-wide Minor Unit	
General Law Elective or Non-law Elective or University-wide Minor Unit	
Year 5 Semester 2	
LLB306	Civil Procedure
LLH305	Corporate Law
General Law Elective or Non-law Elective or University-wide Minor Unit	
General Law Elective or Non-law Elective or University-wide Minor Unit	
Year 6 Semester 1	
LLH401	Legal Research Capstone
Advanced Law Elective	
Advanced Law Elective	
Elective Information	
Students may complete up to 4 non-law electives or a university wide minor comprised of 4 units in place of the equivalent number of general law electives.	

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 1, Semester 2	
Science Core Unit Option	
Science Core Unit Option	
Year 2, Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
Year 2, Semester 2	
BVB101	Foundations of Biology
BVB102	Evolution
Year 3, Semester 1	
BVB201	Biological Processes
BVB202	Experimental Design and Quantitative Methods
Year 3, Semester 2	
BVB203	Plant Biology
BVB204	Ecology
Year 4, Semester 1	
BVB301	Animal Biology
BVB305	Microbiology and the Environment
Year 4, Semester 2	
BVB302	Applied Biology
BVB304	Integrative Biology

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 1, Semester 2	
Science Core Unit Option	
Science Core Unit Option	
Year 2, Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods

	in Science
Year 2, Semester 2	
CVB101	General Chemistry
CVB102	Chemical Structure and Reactivity
Year 3, Semester 1	
CVB201	Inorganic Chemistry
CVB202	Analytical Chemistry
Year 3, Semester 2	
CVB203	Physical Chemistry
CVB204	Organic Structure and Mechanisms
Year 4, Semester 1	
CVB301	Organic Chemistry: Strategies for Synthesis
CVB302	Applied Physical Chemistry
Year 4, Semester 2	
CVB303	Coordination Chemistry
CVB304	Chemistry Research Project

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 1, Semester 2	
Science Core Unit Option	
Science Core Unit Option	
Year 2, Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
Year 2, Semester 2	
ERB101	Earth Systems
ERB102	Evolving Earth
Year 3, Semester 1	
ERB201	Destructive Earth: Natural Hazards
ERB202	Marine Geoscience
Year 3, Semester 2	
ERB203	Sedimentary Geology and Stratigraphy
ERB204	Deforming Earth: Fundamentals of Structural Geology

Year 4, Semester 1	
ERB301	Chemical Earth
ERB302	Applied Geophysics
Year 4, Semester 2	
ERB303	Energy Resources and Basin Analysis
ERB304	Dynamic Earth: Plate Tectonics

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 1, Semester 2	
Science Core Unit Option	
Science Core Unit Option	
Year 2, Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
Year 2, Semester 2	
ERB101	Earth Systems
EVB102	Ecosystems and the Environment
Year 3, Semester 1	
BVB202	Experimental Design and Quantitative Methods
EVB201	Global Environmental Issues
Year 3, Semester 2	
BVB204	Ecology
[EVB301 replaced by BVB204 in 2017]	
EVB203	Geospatial Information Science
Year 4, Semester 1	
EVB302	Environmental Pollution
EVB312	Soils and the Environment
[EVB212 replaced by EVB312 in 2017]	
Year 4, Semester 2	
ERB310	Groundwater Systems
[ENB380 replaced by ERB310 in 2017]	
EVB304	Case Studies in Environmental Science

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 1, Semester 2	
Science Core Unit Option	
Science Core Unit Option	
Year 2, Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
Year 2, Semester 2	
PVB101	Physics of the Very Large
PVB102	Physics of the Very Small
Year 3, Semester 1	
PVB200	Computational and Mathematical Physics
PVB203	Experimental Physics
[PVB201 replaced by PVB200 in 2015.]	
Year 3, Semester 2	
PVB202	Mathematical Methods in Physics
PVB204	Electromagnetism
Year 4, Semester 1	
PVB301	Materials and Thermal Physics
PVB302	Classical and Quantum Physics
Year 4, Semester 2	
PVB303	Nuclear and Particle Physics
PVB304	Physics Research

The new Bachelor of Laws (Honours) is effective from semester 1, 2015. As a result of this new course, some of the unit codes have changed to LLBxxx. Your study plan will be updated to reflect these changes. For information regarding these changes, please refer to the QUT Real Law (LAW_Real_Law) Blackboard site under My Community on your blackboard homepage or contact law_enquiries@qut.edu.au for further information.

Before enrolling in an option (elective) unit, you must ensure you have met any pre- or co-requisite requirements. You can check this by referring to the unit outlines on QUT Virtual.

Introductory Law Electives	
Code	Title
LLB140	Human Rights Law
LLB141	Introduction to International Law
LLB142	Regulation of Business

The new Bachelor of Laws (Honours) is effective from semester 1, 2015. As a result of this new course, some of the unit codes have changed to LLBxxx. Your study plan will be updated to reflect these changes. For information regarding these changes, please refer to the QUT Real Law (LAW_Real_Law) Blackboard site under My Community on your blackboard homepage or contact law_enquiries@qut.edu.au for further information.

Before enrolling in an option (elective) unit, you must ensure you have met any pre- or co-requisite requirements. You can check this by referring to the unit outlines on QUT Virtual.

General Law Electives List	
Code	Title
LLB240	Chinese Legal System
LLB241	Discrimination and Equal Opportunity Law
LLB242	Media Law
LLB243	Family Law
LLB244	Criminal Law Sentencing
LLB245	Sports Law
LLB246	Principles of Labour Law
LLB340	Banking and Finance Law
LLB342	Immigration and Refugee Law
LLB344	Intellectual Property Law
LLB345	Internet Law
LLB346	Succession Law
LLB347	Taxation Law
LLB348	Socio-Legal Research Methods

LLB349	Japanese Law
LLB440	Environmental Law
LLB443	Mining and Resources Law
LLB444	Real Estate Transactions
LLB445	International Commercial Arbitration
LLB460	Competition Moots A
LLB461	Competition Moots B
LLB462	Learning in Professional Practice
LLB463	Legal Clinic (Organised Program)
LLB464	Legal Clinic (International)

The new Bachelor of Laws (Honours) is effective from semester 1, 2015. As a result of this new course, some of the unit codes have changed to LLBxxx. Your study plan will be updated to reflect these changes. For information regarding these changes, please refer to the QUT Real Law (LAW_Real_Law) Blackboard site under My Community on your blackboard homepage or contact law_enquiries@qut.edu.au for further information.

Before enrolling in an option (elective) unit, you must ensure you have met any pre- or co-requisite requirements. You can check this by referring to the unit outlines on QUT Virtual.

Advanced Law Electives	
Code	Title
LLH470	Commercial Contracts in Practice
LLH471	Health Law and Practice
LLH472	Public International Law
LLH473	Independent Research Project
LLH474	Insolvency Law
LLH475	Theories of Law
LLH477	Innovation and Intellectual Property Law

Bachelor of Information Technology/Bachelor of Laws (Honours)

Handbook

Year	2017
QUT code	IX87
CRICOS	083025D
Duration (full-time)	5.5 years
OP	5
Rank	91
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9800 per year full-time (96 credit points)
International fee (indicative)	2017: $27600 per year full-time (96 credit points)
Total credit points	528
Credit points full-time sem.	48
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Mr Mike Roggenkamp (Information Technology); ph: 61 7 3138 8822; email: sef.enquiry@qut.edu.au; or, Director of UG Programs Jen Yule (Law Students) law_enquiries@qut.edu.au or phone 61 7 3138 2707
Discipline Coordinator	Law: Jennifer Yule; IT: Professor Colin Fidge (Computer Science); and IT Course Coordinator (Information Systems). Law: +61 7 3138 2707; IT: +61 7 3138 8822 Law: law_enquiries@qut.edu.au; IT: sef.enquiry@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths A, B or C
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

International Subject prerequisites

- Maths A, B or C

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course structure information

Students are required to complete 528 credit points, comprised of 192 credit points for the Bachelor of Information Technology program and 336 credit points for the Bachelor of Laws program.

Requirements for the completion of the Bachelor of Information Technology component are as follows:

(a) 72 credit points (6 units) of IT Core units, which includes 24 credit points (2 units) of Option Units selected from an approved list.
(b) 120 credit points (10 units) of Major Core units

Information Technology Majors
Choose your primary area of study, also known as your major, in the following specialisation areas: Information Systems or Computer Science.

Information Technology Options List
The Bachelor of Information Technology Core Unit Options List comprises a range of units from which you choose to undertake two (2). The options include introductory units from a wide variety of disciplines offered at QUT.

Under the Law component students will complete 336 credit points of core units and a mixture of Introductory, General and Advanced Electives. Students may select up to 48 credit points of non-law electives or 48 credit points of a University-wide minor in place of four of the General Electives. Successful completion of a minor will be recognised on the Academic Record and / or the Australian Higher Education Graduation Statement.

Total Law credit points: 336
Total credit points for core units: 240
Total credit points for elective units: 96

Honours Level Units
96 credit points of Honours units listed below will be used to determine the Honours Levels of the LLB (Hons):
LLH201 Legal Research,
LLH206 Administrative Law,
LLH302 Ethics and the Legal Profession,
LLH305 Corporate Law,
LLH401 Legal Research Capstone (24 cps) and
two Advanced Electives in law.

Professional Recognition

This course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

The QUT LLB (Hons) is an approved degree for the purposes of the Legal Practitioners Admission Rules. Accordingly, it enables graduates to satisfy the academic requirements for admission to practise as a solicitor and/or barrister in all Australian states and territories.

Admission to practice

If, at the end of your degree, you wish to become a legal practitioner, you will need to complete further practical legal training (PLT). QUT also offers PLT in the form of the Graduate Diploma in Legal Practice.

Career Outcomes

Graduates may develop careers in cyberlaw, intellectual property and privacy, dealing with the legal regulation of the Internet including downloading music, mobile phone camera use or copyright issues. You may become a legal practitioner, barrister, in-house counsel, government lawyer or policy

adviser. There is also increased demand for roles in edemocracy both in egovernment service delivery and political campaigning.

In developing the LLB (Hons) the Faculty recognises that graduates are increasingly seeking a broad range of careers including, but not limited to, legal practice. The defining nature of the QUT LLB (Hons) is its real-world applied nature which will equip you with advanced knowledge and research and other skills and that meet the needs of not only the legal profession, but also government, community organisations, business and industry.

The LLB (Hons) provides students with an opportunity to advance their knowledge of law in specialised areas through the elective units offered as part of the course. The elective units allow you to study areas of the law that match your career aspirations.
Career opportunities include working in general legal practice, specialist legal practice, government departments and employment in private enterprise.

Pathways to Further Studies

The QUT Bachelor of Information Technology is located at Level 7 of the Australian Qualifications Framework (AQF). Eligible graduates may continue their studies in this discipline with an additional honours year in (IN10) Bachelor of Information Technology (Honours).

On successful completion of the Bachelor of Laws, there are a number of further study options open to you. The Bachelor of Laws meets the entry requirements for Practical Legal Training courses (for example, the QUT Graduate Diploma in Legal Practice). In addition, successful completion of the law degree will allow you to pursue postgraduate opportunities through research- and coursework-based higher degrees in law.

Deferment

Domestic students can defer their offer in this course for one year. In exceptional circumstances up to 12 months of additional deferment may be granted.

Find out more at deferment

Domestic Course structure

Students are required to complete 528 credit points, comprised of 192 credit points for the Bachelor of Information Technology program and 336 credit points for the Bachelor of Laws program.

Requirements for the completion of the Bachelor of Information Technology component are as follows:

1. 72 credit points (6 units) of IT Core units, which includes 24 credit points (2 units) of Option Units selected from an approved list.
2. (b) 120 credit points (10 units) of Major Core units

Information Technology Majors
Choose your primary area of study, also known as your major, in the following specialisation areas: Information Systems or Computer Science.

Information Technology Options List
The Bachelor of Information Technology Core Unit Options List comprises a range of units from which you choose to undertake two (2). The options include introductory units from a wide variety of disciplines offered at QUT.

Under the Law component students will complete 336 credit points of core units and a mixture of Introductory, General and Advanced Electives. Students may select up to 48 credit points of non-law electives or 48 credit points of a University-wide minor in place of four of the General Electives. Successful completion of a minor will be recognised on the Academic Record and / or the Australian Higher Education Graduation Statement.

Total Law credit points: 336
Total credit points for core units: 240
Total credit points for elective units: 96

Honours Level Units
96 credit points of Honours units listed below will be used to determine the Honours Levels of the LLB (Hons):
LLH201 Legal Research,
LLH206 Administrative Law,
LLH302 Ethics and the Legal Profession,
LLH305 Corporate Law,
LLH401 Legal Research Capstone (24 cps) and
2 x 12 cp Advanced Law Electives

International Course structure

Students are required to complete 528 credit points, comprised of 192 credit points for the Bachelor of Information Technology program and 336 credit points for the Bachelor of Laws program.

Requirements for the completion of the Bachelor of Information Technology component are as follows:

1. 72 credit points (6 units) of IT Core units, which includes 24 credit points (2 units) of Option Units selected from an approved list.
2. (b) 120 credit points (10 units) of Major Core units

Information Technology Majors
Choose your primary area of study, also known as your major, in the following specialisation areas: Information Systems or Computer Science.

Information Technology Options List
The Bachelor of Information Technology Core Unit Options List comprises a range of units from which you choose to undertake two (2). The options include introductory units from a wide variety of disciplines offered at QUT.

Under the Law component students will complete 336 credit points of core units and a mixture of Introductory, General and Advanced Electives. Students may select up to 48 credit points of non-law electives or 48 credit points of a University-wide minor in place of four of the General Electives. Successful completion of a minor will be recognised on the Academic Record and / or the Australian Higher Education Graduation Statement.

Total Law credit points: 336
Total credit points for core units: 240
Total credit points for elective units: 96

Honours Level Units
96 credit points of Honours units listed below will be used to determine the Honours Levels of the LLB (Hons):
LLH201 Legal Research,
LLH206 Administrative Law,
LLH302 Ethics and the Legal Profession,
LLH305 Corporate Law,
LLH401 Legal Research Capstone (24 cps) and
2 x 12 cp Advanced Law Electives.

Sample Structure

The new Bachelor of Laws (Honours) is effective from semester 1, 2015. As a result of this new course, some of the unit codes have changed to LLBxxx. Your study plan will be updated to reflect these changes. For information regarding these changes, please refer to the QUT Real Law (LAW_Real_Law) Blackboard site under My Community on your blackboard homepage or contact law_enquiries@qut.edu.au for further information.

Before enrolling in an option (elective) unit, you must ensure you have met any pre- or co-requisite requirements. You can check this by referring to the unit outlines on QUT Virtual.

Bachelor of Information Technology/Bachelor of Laws (Honours)

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1
- Year 5, Semester 2
- Year 6, Semester 1

Code	Title
Year 1, Semester 1	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
LLB101	Introduction to Law
LLB102	Torts
Year 1, Semester 2	
IFB103	Designing for IT
IFB104	Building IT Systems
LLB105	Legal Problems and Communication
LLB106	Criminal Law
Year 2, Semester 1	
IT Core Option Unit	
IT Core Option Unit	
LLB103	Dispute Resolution
LLB104	Contemporary Law and Justice
Year 2, Semester 2	
IT Major Unit	
IT Major Unit	
Introductory Law Elective	
LLH201	Legal Research
Year 3, Semester 1	
IT Major Unit	
IT Major Unit	
LLB202	Contract Law
LLB203	Constitutional Law
Year 3, Semester 2	
IT Major Unit	
IT Major Unit	
LLB204	Commercial and Personal Property Law
LLB205	Equity and Trusts
Year 4, Semester 1	
IT Major Unit	
IT Major Unit	
LLB301	Real Property Law
General Law Elective	
Year 4, Semester 2	
IT Major Unit	
IT Major Unit	
LLB303	Evidence
LLH206	Administrative Law
Year 5, Semester 1	
LLB304	Commercial Remedies
LLH302	Ethics and the Legal Profession
General Law Elective or Non-law Elective or University-wide Minor Unit	
General Law Elective or Non-law Elective or University-wide Minor Unit	
Year 5, Semester 2	
LLB306	Civil Procedure
LLH305	Corporate Law
General Law Elective or Non-law Elective or University-wide Minor Unit	
General Law Elective or Non-law Elective or University-wide Minor Unit	
Year 6, Semester 1	
LLH401	Legal Research Capstone
Advanced Law Elective	
Advanced Law Elective	

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- Year 5, Semester 1
- Year 5, Semester 2
- Year 6, Semester 1

Code	Title
Year 1, Semester 1	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
LLB101	Introduction to Law
LLB102	Torts
Year 1, Semester 2	
IFB130	Database Management
IFB104	Building IT Systems
LLB105	Legal Problems and Communication
LLB106	Criminal Law
Year 2, Semester 1	
IFB103	Designing for IT
IT Major Unit	
LLB103	Dispute Resolution
LLB104	Contemporary Law and Justice
Year 2, Semester 2	
IT Major Unit	
IT Major Unit	
Introductory Law Elective	
LLH201	Legal Research
Year 3, Semester 1	
IT Major Unit	
IT Major Unit	
LLB202	Contract Law
LLB203	Constitutional Law
Year 3, Semester 2	
IT Major Unit	
IT Major Unit	
LLB204	Commercial and Personal Property Law
LLB205	Equity and Trusts
Year 4, Semester 1	
IT Major Unit	
IT Major Unit	
LLB301	Real Property Law
General Law Elective	
Year 4, Semester 2	
IT Major Unit	
IT Core Option Unit	
LLH206	Administrative Law
LLB303	Evidence
Year 5, Semester 1	
LLH302	Ethics and the Legal Profession
LLB304	Commercial Remedies
General Law Elective or Non-law Elective or University-wide Minor Unit	
General Law Elective or Non-law Elective or University-wide Minor Unit	
Year 5, Semester 2	
LLH305	Corporate Law
LLB306	Civil Procedure
General Law Elective or Non-law Elective or University-wide Minor Unit	
General Law Elective or Non-law Elective or University-wide Minor Unit	
Year 6, Semester 1	
LLH401	Legal Research Capstone
Advanced Law Elective	
Advanced Law Elective	

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Bachelor of Information Technology/Bachelor of Laws (Honours)

Code	Title
Year 1, Semester 1	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
Year 1, Semester 2	
IFB104	Building IT Systems
IFB130	Database Management
Year 2, Semester 1	
IFB103	Designing for IT
IT Core Unit Option	
Year 2, Semester 2	
CAB201	Programming Principles
CAB202	Microprocessors and Digital Systems
Year 3, Semester 1	
CAB203	Discrete Structures
CAB302	Software Development
Year 3, Semester 2	
CAB303	Networks
IFB299	IT Project Design and Development
Year 4, Semester 1	
CAB301	Algorithms and Complexity
IFB398	Capstone Project (Phase 1)
Year 4, Semester 2	
IFB399	Capstone Project (Phase 2)
Select one of:	
CAB401	High Performance and Parallel Computing
CAB402	Programming Paradigms
CAB403	Systems Programming

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
Year 1, Semester 2	
IFB104	Building IT Systems
IFB130	Database Management
Year 2, Semester 1	
IFB103	Designing for IT
IT Core Unit Option	
Year 2, Semester 2	
IAB201	Modelling Information Systems
IAB202	Business of Information Technology
Year 3, Semester 1	
IAB203	Business Process Modelling
IAB204	Business Analysis
Year 3, Semester 2	
IAB205	Corporate Systems
IFB299	IT Project Design and Development
Year 4, Semester 1	
IFB398	Capstone Project (Phase 1)
Select one of:	
IAB302	Information Systems Consulting
IAB303	Business Intelligence
IAB304	Project Management
Year 4, Semester 2	
IAB301	Enterprise Architecture
IFB399	Capstone Project (Phase 2)

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Before enrolling in an option (elective) unit, you must ensure you have met any pre- or co-requisite requirements. You can check this by referring to the unit outlines on QUT Virtual.

Introductory Law Electives	
Code	Title
LLB140	Human Rights Law
LLB141	Introduction to International Law
LLB142	Regulation of Business

The new Bachelor of Laws (Honours) is effective from semester 1, 2015. As a result of this new course, some of the unit codes have changed to LLBxxx. Your study plan will be updated to reflect these changes. For information regarding these changes, please refer to the QUT Real Law (LAW_Real_Law) Blackboard site under My Community on your blackboard homepage or contact law_enquiries@qut.edu.au for further information.

Before enrolling in an option (elective) unit, you must ensure you have met any pre- or co-requisite requirements. You can check this by referring to the unit outlines on QUT Virtual.

General Law Electives List	
Code	Title
LLB240	Chinese Legal System
LLB241	Discrimination and Equal Opportunity Law
LLB242	Media Law
LLB243	Family Law
LLB244	Criminal Law Sentencing
LLB245	Sports Law
LLB246	Principles of Labour Law
LLB340	Banking and Finance Law
LLB342	Immigration and Refugee Law
LLB344	Intellectual Property Law
LLB345	Internet Law
LLB346	Succession Law
LLB347	Taxation Law
LLB348	Socio-Legal Research Methods
LLB349	Japanese Law
LLB440	Environmental Law
LLB443	Mining and Resources Law
LLB444	Real Estate Transactions
LLB445	International Commercial Arbitration
LLB460	Competition Moots A
LLB461	Competition Moots B
LLB462	Learning in

	Professional Practice
LLB463	Legal Clinic (Organised Program)
LLB464	Legal Clinic (International)

The new Bachelor of Laws (Honours) is effective from semester 1, 2015. As a result of this new course, some of the unit codes have changed to LLBxxx. Your study plan will be updated to reflect these changes. For information regarding these changes, please refer to the QUT Real Law (LAW_Real_Law) Blackboard site under My Community on your blackboard homepage or contact law_enquiries@qut.edu.au for further information.

Before enrolling in an option (elective) unit, you must ensure you have met any pre- or co-requisite requirements. You can check this by referring to the unit outlines on QUT Virtual.

Advanced Law Electives	
Code	Title
LLH470	Commercial Contracts in Practice
LLH471	Health Law and Practice
LLH472	Public International Law
LLH473	Independent Research Project
LLH474	Insolvency Law
LLH475	Theories of Law
LLH477	Innovation and Intellectual Property Law

Bachelor of Mathematics (Honours)

Handbook

Year	2017
QUT code	MS10
CRICOS	080486K
Duration (full-time)	1 year
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $32500 per year full-time (96 credit points)
Total credit points	96
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Course Coordinator	Dr Elliot Carr; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	

Domestic Entry requirements

Academic entry requirement

A completed recognised bachelor degree with a minimum grade point average (GPA) score of 4.5 (on QUT's 7-point scale) completed within the last 5 years in the fields of:

- mathematics
- computer science
- economics or finance
- physics
- engineering

Applicants are required to nominate their proposed topic and supervisor. Places are subject to supervisor availability.

International Entry requirements

Academic entry requirement

A completed recognised bachelor degree with a minimum grade point average (GPA) score of 4.5 (on QUT's 7-point scale) completed within the last 5 years in the fields of:

- mathematics
- computer science
- economics or finance
- physics
- engineering

Applicants are required to nominate their proposed topic and supervisor. Places are subject to supervisor availability.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Design

Students undertake a 36 credit point Research Project.

Overview

The Bachelor of Mathematics (Honours) course provides extended modern and rigorous training in mathematical sciences and related research, to prepare students both for higher-level graduate careers in industry and government and for research at PhD or Research Masters level. The course contributes to addressing the continuing shortage of highly trained mathematical scientists in Australia and abroad.

Through a combination of research and advanced coursework units, students pursue specialised studies in an area of mutual interest with a personal research mentor/supervisor. Research units will enable students to develop an understanding of the nature of mathematical and statistical approaches to solving real world, current research problems. Coursework units provide students the opportunity to develop much more advanced skills and knowledge compared with those built in the undergraduate course. The coursework emphasises mathematics and statistics that is required for current research and for a competitive edge in the employment market.

The course provides students with further depth of knowledge and analytical skills expected of professionals who apply mathematics, computational methods, decision science and statistics in the workplace and in further research.

Course Structure

Requirements for the completion of MS10 Bachelor of Mathematics (Honours) are as follows:

CORE: Foundations of Research unit and Reviewing the Field unit

OPTION: A choice of either the *Expanded Research* Strand or the *Extended Coursework* Strand

Each strand comprises of coursework and a major research project supervised by QUT staff.

Career Outcomes

Mathematics graduates are employed across a wide range of areas. These include, but are not limited to, finance, investment, data analytics, defence and national security, research, information technology, engineering modelling and simulation, environmental science, health, management, marketing, logistics, media, and education. In addition to their knowledge and skills in mathematics, graduates are also highly valued for their analytical and problem-solving skills. Development of skills in communication, problem-solving, critical thinking and teamwork form an integral part of the course.

Professional Recognition

Graduates of this course may be eligible for membership of the Australian Mathematical Society, Statistical Society of Australia and/or the Australian Society for Operations Research

Pathways to Further Study

The QUT Bachelor of Mathematics (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates may be eligible for discipline relevant Research Masters and/or Doctoral level programs.

Domestic Course structure

Requirements for the completion of MS10 Bachelor of Mathematics (Honours) are as follows:

SEB400 Foundations of Research (12 cp)

SEB404 Honours Research Project (36 cp)

SEB410 Advanced Topic 1 (12 cp)

SEB411 Advanced Topic 2 (12 cp)

SEB412 Advanced Topic 3 (12 cp)

SEB413 Advanced Topic 4 (12 cp)

International Course structure

Requirements for the completion of MS10 Bachelor of Mathematics (Honours) are as follows:

SEB400 Foundations of Research (12 cp)

SEB404 Honours Research Project (36 cp)

SEB410 Advanced Topic 1 (12 cp)

SEB411 Advanced Topic 2 (12 cp)

SEB412 Advanced Topic 3 (12 cp)

SEB413 Advanced Topic 4 (12 cp)

Sample Structure

Code	Title
Semester 1	
SEB400	Foundations of Research
SEB410	Advanced Topic 1
SEB411	Advanced Topic 2
SEB413	Advanced Topic 4
Semester 2	
SEB404-1	Honours Research Project-1
SEB404-2	Honours Research Project-2
SEB404-3	Honours Research Project-3
SEB412	Advanced Topic 3

Bachelor of Engineering (Honours)/Bachelor of Mathematics

Handbook

Year	2017
QUT code	SE40
CRICOS	084922G
Duration (full-time)	5 years
OP	6
Rank	89
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $30200 per year full-time (96 credit points)
Total credit points	480
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - (Engineering major); Associate Professor Tim Moroney (Mathematics major); email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Dr Brian Lee (Civil); Dr Wayne Kelly (Computer & Software Systems); Dr Jacob Coetzee (Electrical); Ass. Professor Felipe Gonzalez (Electrical & Aerospace); Professor Ted Steinberg (Mechanical); Ass. Professor Jason Ford (Mechatronics); Dr Devakar Epari (Medical); Ass. Professor Robert Speight (Process); TBA (Applied and Computational Mathematics – Dr Qianqian Yang in SEM-1 2017 only); Associate Professor Paul Corry (Decision Science); and Dr Chris Drovandi (Statistical Science)

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended Study: Chemistry, Mathematics C, Physics.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended Study: Chemistry, Mathematics C, Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Domestic Course structure

To graduate with a Bachelor of Engineering (Honours) in SE40, students are required to complete 288 credit points of course units, as outlined below:

- First year: four (4) core units 48cp + two (2) discipline foundation units 24cp + two (2) option units 24cp (96 credit points)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

International Course structure

To graduate with a Bachelor of Engineering (Honours) in SE40, students are required to complete 288 credit points of course units, as outlined below:

- First year: four (4) core units 48cp + two (2) discipline foundation units 24cp + two (2) option units 24cp (96 credit points)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x Advanced major units 60cp.

Sample Structure

Semesters

- Applied and Computational Mathematics Major unit set:
- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2
- NOTE:

Code	Title
Applied and Computational Mathematics Major unit set:	
Year 1 Semester 1	
MXB102	Abstract Mathematical Reasoning
Maths Core Options Unit**	
OR	
MXB101	Probability and Stochastic Modelling 1
OR	
MXB103	Introductory Computational Mathematics
Year 1 Semester 2	
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
(PLEASE NOTE: you will need to nominate your Maths major in your Study Plan to select MXB105 and MXB106. These units are common to all three Maths majors)	
Year 2 Semester 1	
MXB101	Probability and Stochastic Modelling 1
OR Maths Core Options Unit** (select if completed MXB101 in first year)	
MXB103	Introductory Computational Mathematics
OR Maths Core Options Unit** (select if	

completed MXB103 in first year)	
Year 2 Semester 2	
MXB107	Introduction to Statistical Modelling
Maths Core Options Unit**	
Year 3 Semester 1	
MXB201	Advanced Linear Algebra
MXB221	Ordinary Differential Equations
Year 3 Semester 2	
MXB202	Advanced Calculus
MXB222	Computational Linear Algebra
Year 4 Semester 1	
MXB321	Applied Transport Theory
MXB322	Partial Differential Equations
Year 4 Semester 2	
MXB323	Dynamical Systems
MXB324	Computational Fluid Dynamics
NOTE:	
** Only TWO (2) Option units may be taken in these 4 unit-slots.	

Semesters

- Decision Science Major unit set:
- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2
- NOTE:

Code	Title
Decision Science Major unit set:	
Year 1 Semester 1	
MXB102	Abstract Mathematical Reasoning
Maths Core Options Unit**	
OR	
MXB101	Probability and Stochastic Modelling 1
OR	
MXB103	Introductory Computational Mathematics
Year 1 Semester 2	
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
(PLEASE NOTE: you will need to nominate your Maths major in your Study Plan to select MXB105 and MXB106. These units are common to all three Maths majors)	
Year 2 Semester 1	
MXB101	Probability and Stochastic Modelling 1
OR Maths Core Options Unit** (select if completed MXB101 in first year)	
MXB103	Introductory Computational Mathematics
OR Maths Core Options Unit** (select if completed MXB103 in first year)	
Year 2 Semester 2	
MXB107	Introduction to Statistical Modelling
Maths Core Options Unit	
Year 3 Semester 1	
MXB201	Advanced Linear Algebra
MXB232	Introduction to Operations Research
Year 3 Semester 2	
MXB202	Advanced Calculus
MXB241	Probability and Stochastic Modelling 2
OR	
CAB201	Programming Principles
Year 4 Semester 1	
MXB332	Optimisation Modelling
MXB341	Statistical Inference
OR	
MXB351	Coding Theory and Graph Theory
Year 4 Semester 2	
MXB334	Operations Research for Stochastic Processes
MXB335	Advanced Optimisation Modelling
NOTE:	
** Only TWO (2) Option units may be taken in these 4 unit-slots.	

Semesters

- Statistical Science Major unit set:
- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2
- NOTE:

Code	Title
Statistical Science Major unit set:	
Year 1 Semester 1	
MXB102	Abstract Mathematical Reasoning
Maths Core Options Unit**	
OR	
MXB101	Probability and Stochastic Modelling 1
OR	
MXB103	Introductory Computational Mathematics
Year 1 Semester 2	
MXB105	Calculus of One and Two Variables
MXB106	Linear Algebra and Differential Equations
(PLEASE NOTE: you will need to nominate your Maths major in your Study Plan to select MXB105 and MXB106. These units are common to all three Maths majors)	
Year 2 Semester 1	
MXB101	Probability and Stochastic Modelling 1
OR Maths Core Options Unit** (select if completed MXB101 in first year)	
MXB103	Introductory Computational Mathematics
OR Maths Core Options Unit** (select if completed MXB103 in first year)	
Year 2 Semester 2	
MXB107	Introduction to Statistical Modelling
Maths Core Options Unit**	
Year 3 Semester 1	
MXB201	Advanced Linear Algebra
MXB242	Regression and Design
Year 3 Semester 2	
MXB202	Advanced Calculus
MXB241	Probability and Stochastic Modelling 2
Year 4 Semester 1	
MXB341	Statistical Inference
MXB342	Statistical Techniques
Year 4 Semester 2	
MXB343	Modelling Dependent Data
MXB344	Generalised Linear Models
NOTE:	
** Only TWO (2) Option units may be taken in these 4 unit-slots.	

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4, Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems

Bachelor of Engineering (Honours)/Bachelor of Mathematics

MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
Foundation Unit Option	
EGB123	Civil Engineering Systems
Year 3 - Semester 1	
EGB270	Civil Engineering Materials
EGB272	Traffic and Transport Engineering
Year 3 - Semester 2	
EGB273	Principles of Construction
EGB373	Geotechnical Engineering
Year 4, Semester 1	
EGB275	Structural Mechanics
EGB371	Engineering Hydraulics
Year 4 - Semester 2	
EGB376	Steel Design
EGH471	Advanced Water Engineering
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
EGB375	Design of Concrete Structures
EGH473	Advanced Geotechnical Engineering
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH472	Advanced Highway and Pavement Engineering
EGH475	Advanced Concrete Structures
EGH479	Advances in Civil Engineering Practice

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Intermediate Software Option Unit
- Advanced Electrical Option Unit
- Advanced Software Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB242	Signal Analysis
CAB202	Microprocessors and Digital Systems
Year 3 - Semester 2	
CAB201	Programming Principles
Computer Science students must take CAB201 in your Computer and Software Systems major. Please contact Science and Engineering Faculty to have 12 credit points added to your Computer Science Unit Options List.	
Intermediate Electrical Option Unit	
Year 4 - Semester 1	
EGB240	Electronic Design
Intermediate Software Option Unit	
For students with Computer Science Major: CAB301 and CAB302 are core to the Computer Science Major. Please contact Science and Engineering Faculty to be provided a list of additional units you can select from.	
Year 4 - Semester 2	
CAB403	Systems Programming
Intermediate Electrical or Software Option Unit	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
Advanced Electrical or Software Option Unit	
EGH400-1	Research Project 1
EGH456	Embedded Systems
Year 5 - Semester 2	
EGH400-2	Research Project 2
Advanced Software Option Unit	
Advanced Electrical Option Unit	
EGH455	Advanced Systems Design
Intermediate Electrical Option Unit	
EGB348	Electronics
EGB345	Control and Dynamic Systems
EGB342	Telecommunications and Signal Processing
Intermediate Software Option Unit	
CAB302	Software Development
CAB301	Algorithms and Complexity
Advanced Electrical Option Unit	
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics
Advanced Software Option Unit	
CAB432	Cloud Computing
CAB401	High Performance and Parallel Computing

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Advanced Electrical Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	

Bachelor of Engineering (Honours)/Bachelor of Mathematics

EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
CAB202	Microprocessors and Digital Systems
Year 3 - Semester 1	
EGB240	Electronic Design
EGB241	Electromagnetics and Machines
Year 3 - Semester 2	
EGB242	Signal Analysis
Intermediate Electrical Option Unit (1)	
Year 4 - Semester 1	
EGB340	Design and Practice
Foundation Unit Option	
Year 4 - Semester 2	
Intermediate Electrical Option Unit (2)	
Intermediate Electrical Option Unit (3)	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
Advanced Electrical Option Unit (1)	
Advanced Electrical Option Unit (2)	
Year 5 - Semester 2	
EGH400-2	Research Project 2
Advanced Electrical Option Unit (3)	
Advanced Electrical Option Unit (4)	
Advanced Electrical Option Unit (5)	
Intermediate Electrical Option Unit	
EGB341	Energy Supply and Delivery
EGB342	Telecommunications and Signal Processing
EGB345	Control and Dynamic Systems
EGB348	Electronics
Advanced Electrical Option Unit	
EGH440	Power Systems Analysis
EGH441	Power System Modelling
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Advanced Electrical Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
CAB202	Microprocessors and Digital Systems
EGB241	Electromagnetics and Machines
Year 3 - Semester 2	
EGB242	Signal Analysis
Intermediate Electrical Option Unit (1)	
Year 4 - Semester 1	
EGB340	Design and Practice
EGB240	Electronic Design
Year 4 - Semester 2	
Intermediate Electrical Option Unit (2)	
Intermediate Electrical Option Unit (3)	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
Advanced Electrical Option Unit (1)	
Advanced Electrical Option Unit (2)	
Year 5 - Semester 2	
EGH400-2	Research Project 2
Advanced Electrical Option Unit (3)	
Advanced Electrical Option Unit (4)	
Advanced Electrical Option Unit (5)	
Intermediate Electrical Option Unit	
EGB341	Energy Supply and Delivery
EGB342	Telecommunications and Signal Processing
EGB345	Control and Dynamic Systems
EGB348	Electronics
Advanced Electrical Option Unit	
EGH440	Power Systems Analysis
EGH441	Power System Modelling
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical and Aerospace Option Units
- Advanced Electrical and Aerospace Option Units

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
MXB161	Computational Explorations
Year 1 - Semester 2	

Bachelor of Engineering (Honours)/Bachelor of Mathematics

EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
CAB202	Microprocessors and Digital Systems
EGB240	Electronic Design
Year 3 - Semester 2	
EGB242	Signal Analysis
Intermediate Electrical Option Unit	
Year 4 - Semester 1	
EGB349	Systems Engineering and Design Project
EGB243	Aircraft Systems and Flight
Year 4 - Semester 2	
EGB346	Unmanned Aircraft Systems
EGB345	Control and Dynamic Systems
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH446	Autonomous Systems
EGH400-1	Research Project 1
Advanced Electrical Option Unit	
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH445	Modern Control
EGH450	Advanced Unmanned Aircraft Systems
Advanced Electrical Option Unit	
Intermediate Electrical and Aerospace Option Units	
CAB403	Systems Programming
EGB342	Telecommunications and Signal Processing
EGB348	Electronics
Advanced Electrical and Aerospace Option Units	
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH448	Power Electronics
EGH449	Advanced Electronics
EGH455	Advanced Systems Design
EGH456	Embedded Systems

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB210	Fundamentals of Mechanical Design
EGB214	Materials and Manufacturing
Year 3 - Semester 2	
EGB211	Dynamics
EGB314	Strength of Materials
Year 4 - Semester 1	
EGB321	Dynamics of Machines
EGB323	Fluid Mechanics
Year 4 - Semester 2	
EGB322	Thermodynamics
EGH404	Research in Engineering Practice
Year 5 - Semester 1	
EGB316	Design of Machine Elements
EGH400-1	Research Project 1
EGH414	Stress Analysis
EGH421	Vibration and Control
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH420	Mechanical Systems Design
EGH422	Advanced Thermodynamics
EGH423	Fluids Dynamics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Intermediate Mechanical Option Unit
- Advanced Electrical Option Unit
- Advanced Mechanical Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB242	Signal Analysis
EGB211	Dynamics
Year 3 - Semester 2	
EGB345	Control and Dynamic Systems
CAB202	Microprocessors and Digital Systems

Bachelor of Engineering (Honours)/Bachelor of Mathematics

Year 4 - Semester 1	
EGB220	Mechatronics Design 1
EGB321	Dynamics of Machines
Year 4 - Semester 2	
EGB320	Mechatronics Design 2
Intermediate Electrical Option Unit	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
EGH419	Mechatronics Design 3
EGH446	Autonomous Systems
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH445	Modern Control
EGH413	Advanced Dynamics
Advanced Electrical Option Unit	
Intermediate Electrical Option Unit	
CAB403	Systems Programming
EGB348	Electronics
Intermediate Mechanical Option Unit	
EGB321	Dynamics of Machines
EGB323	Fluid Mechanics
Advanced Electrical Option Unit	
EGH456	Embedded Systems
EGH455	Advanced Systems Design
EGH448	Power Electronics
EGH449	Advanced Electronics
Advanced Mechanical Option Unit	
EGH413	Advanced Dynamics
EGH423	Fluids Dynamics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB210	Fundamentals of Mechanical Design
LSB131	Anatomy
Year 3 - Semester 2	
EGB211	Dynamics
LSB231	Physiology
Year 4 - Semester 1	
EGB214	Materials and Manufacturing
EGB323	Fluid Mechanics
Year 4 - Semester 2	
EGB314	Strength of Materials
EGH404	Research in Engineering Practice
Year 5 - Semester 1	
EGB319	BioDesign
EGH400-1	Research Project 1
EGH414	Stress Analysis
EGH418	Biomechanics
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH424	Biofluids
EGH435	Modelling and Simulation for Medical Engineers
EGH438	Biomaterials

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
CVB220	Process Principles
EGB363	Safety and Environmental Management
Year 3 - Semester 2	
CVB101	General Chemistry
EGB322	Thermodynamics
Year 4 - Semester 1	
EGB260	Operations Management and Process Economics
EGB323	Fluid Mechanics
Year 4 - Semester 2	
EGH404	Research in Engineering Practice
EGH423	Fluids Dynamics
Year 5 - Semester 1	
EGB361	Minerals and Minerals Processing
EGH400-1	Research Project 1
Plant and Process Design	
Unit Operation	
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH411	Industrial Chemistry
EGH422	Advanced Thermodynamics
EGH460	Advanced Process Modelling

Bachelor of Engineering (Honours)/Bachelor of Information Technology

Handbook

Year	2017
QUT code	SE60
CRICOS	084923F
Duration (full-time)	5 years
OP	9
Rank	81
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $30300 per year full-time (96 credit points)
Total credit points	480
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - (Engineering); Mr Mike Roggenkamp (Information Technology); email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Dr Brian Lee (Civil); Dr Wayne Kelly (Computer & Software Systems); Dr Jacob Coetzee (Electrical); Ass. Professor Felipe Gonzalez (Electrical & Aerospace); Professor Ted Steinberg (Mechanical); Ass. Professor Jason Ford (Mechatronics); Dr Devakar Epari (Medical); Ass. Professor Robert Speight (Process); Professor Colin Fidge (Computer Science); and IT Course Coordinator (Information Systems).

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Domestic Course structure

To graduate with a Bachelor of Engineering (Honours) in SE60, students are required to complete 288 credit points of course units, as outlined below:

- First year: four (4) core units 48cp + two (2) discipline foundation units 24cp + two (2) option units 24cp (96 credit points)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

International Course structure

To graduate with a Bachelor of Engineering (Honours) in SE60, students are required to complete 288 credit points of course units, as outlined below:

- First year: four (4) core units 48cp + two (2) discipline foundation units 24cp + two (2) option units 24cp (96 credit points)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2
- NOTE:

Code	Title
Year 1, Semester 1	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
Year 1, Semester 2	
IFB130	Database Management
IFB104	Building IT Systems
Year 2, Semester 1	
IFB103	Designing for IT
IT Core Unit Option	
Year 2, Semester 2	
CAB201	Programming Principles
CAB202	Microprocessors and Digital Systems
OR Computer Software, Electrical, Electrical & Aerospace, Mechatronics Majors replace CAB202 with Computer Science Major Unit Option	
Year 3, Semester 1	
CAB203	Discrete Structures
CAB302	Software Development
Year 3, Semester 2	
CAB303	Networks
IFB299	IT Project Design and Development
Year 4, Semester 1	
CAB301	Algorithms and Complexity
IFB398	Capstone Project (Phase 1)
Year 4, Semester 2	
IFB399	Capstone Project (Phase 2)
Select one of:	

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CAB320	Artificial Intelligence
CAB340	Cryptography
CAB401	High Performance and Parallel Computing
CAB402	Programming Paradigms
CAB403	Systems Programming
CAB430	Data and Information Integration
CAB432	Cloud Computing
CAB440	Network and Systems Administration
NOTE:	
CAB202 is CORE unless your Engineering major is in Computer & Software Systems, Electrical, Electrical & Aerospace or Mechatronics in which you will complete CAB202 in your Engineering component.	
CAB398 and CAB399 are replaced by IFB398 and IFB398 from 2017.	

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
IFB101	Impact of IT
IFB102	Computer Technology Fundamentals
Year 1, Semester 2	
IFB104	Building IT Systems
IFB130	Database Management
Year 2, Semester 1	
IFB103	Designing for IT
IT Core Unit Option	
Year 2, Semester 2	
IAB201	Modelling Information Systems
IAB202	Business of Information Technology
Year 3, Semester 1	
IAB203	Business Process Modelling
IAB204	Business Analysis
Year 3, Semester 2	
IAB205	Corporate Systems
IFB299	IT Project Design and Development
Year 4, Semester 1	
IFB398	Capstone Project (Phase 1)
Select one of:	
IAB302	Information Systems Consulting
IAB303	Business Intelligence
IAB304	Project Management
Year 4, Semester 2	
IAB301	Enterprise Architecture
IFB399	Capstone Project (Phase 2)

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4, Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
Foundation Unit Option	
EGB123	Civil Engineering Systems
Year 3 - Semester 1	
EGB270	Civil Engineering Materials
EGB272	Traffic and Transport Engineering
Year 3 - Semester 2	
EGB273	Principles of Construction
EGB373	Geotechnical Engineering
Year 4, Semester 1	
EGB275	Structural Mechanics
EGB371	Engineering Hydraulics
Year 4 - Semester 2	
EGB376	Steel Design
EGH471	Advanced Water Engineering
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
EGB375	Design of Concrete Structures
EGH473	Advanced Geotechnical Engineering
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH472	Advanced Highway and Pavement Engineering
EGH475	Advanced Concrete Structures
EGH479	Advances in Civil Engineering Practice

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Intermediate Software Option Unit
- Advanced Electrical Option Unit
- Advanced Software Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering

Bachelor of Engineering (Honours)/Bachelor of Information Technology

Foundation Unit Option	
Year 3 - Semester 1	
EGB242	Signal Analysis
CAB202	Microprocessors and Digital Systems
Year 3 - Semester 2	
CAB201	Programming Principles
Computer Science students must take CAB201 in your Computer and Software Systems major. Please contact Science and Engineering Faculty to have 12 credit points added to your Computer Science Unit Options List.	
Intermediate Electrical Option Unit	
Year 4 - Semester 1	
EGB240	Electronic Design
Intermediate Software Option Unit	
For students with Computer Science Major: CAB301 and CAB302 are core to the Computer Science Major. Please contact Science and Engineering Faculty to be provided a list of additional units you can select from.	
Year 4 - Semester 2	
CAB403	Systems Programming
Intermediate Electrical or Software Option Unit	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
Advanced Electrical or Software Option Unit	
EGH400-1	Research Project 1
EGH456	Embedded Systems
Year 5 - Semester 2	
EGH400-2	Research Project 2
Advanced Software Option Unit	
Advanced Electrical Option Unit	
EGH455	Advanced Systems Design
Intermediate Electrical Option Unit	
EGB348	Electronics
EGB345	Control and Dynamic Systems
EGB342	Telecommunications and Signal Processing
Intermediate Software Option Unit	
CAB302	Software Development
CAB301	Algorithms and Complexity
Advanced Electrical Option Unit	
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics
Advanced Software Option Unit	
CAB432	Cloud Computing
CAB401	High Performance and Parallel Computing

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Advanced Electrical Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
CAB202	Microprocessors and Digital Systems
Year 3 - Semester 1	
EGB240	Electronic Design
EGB241	Electromagnetics and Machines
Year 3 - Semester 2	
EGB242	Signal Analysis
Intermediate Electrical Option Unit (1)	
Year 4 - Semester 1	
EGB340	Design and Practice
Foundation Unit Option	
Year 4 - Semester 2	
Intermediate Electrical Option Unit (2)	
Intermediate Electrical Option Unit (3)	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
Advanced Electrical Option Unit (1)	
Advanced Electrical Option Unit (2)	
Year 5 - Semester 2	
EGH400-2	Research Project 2
Advanced Electrical Option Unit (3)	
Advanced Electrical Option Unit (4)	
Advanced Electrical Option Unit (5)	
Intermediate Electrical Option Unit	
EGB341	Energy Supply and Delivery
EGB342	Telecommunications and Signal Processing
EGB345	Control and Dynamic Systems
EGB348	Electronics
Advanced Electrical Option Unit	
EGH440	Power Systems Analysis
EGH441	Power System Modelling
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Advanced Electrical Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering

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	Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
CAB202	Microprocessors and Digital Systems
EGB241	Electromagnetics and Machines
Year 3 - Semester 2	
EGB242	Signal Analysis
Intermediate Electrical Option Unit (1)	
Year 4 - Semester 1	
EGB340	Design and Practice
EGB240	Electronic Design
Year 4 - Semester 2	
Intermediate Electrical Option Unit (2)	
Intermediate Electrical Option Unit (3)	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
Advanced Electrical Option Unit (1)	
Advanced Electrical Option Unit (2)	
Year 5 - Semester 2	
EGH400-2	Research Project 2
Advanced Electrical Option Unit (3)	
Advanced Electrical Option Unit (4)	
Advanced Electrical Option Unit (5)	
Intermediate Electrical Option Unit	
EGB341	Energy Supply and Delivery
EGB342	Telecommunications and Signal Processing
EGB345	Control and Dynamic Systems
EGB348	Electronics
Advanced Electrical Option Unit	
EGH440	Power Systems Analysis
EGH441	Power System Modelling
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical and Aerospace Option Units
- Advanced Electrical and Aerospace Option Units

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
CAB202	Microprocessors and Digital Systems
EGB240	Electronic Design
Year 3 - Semester 2	
EGB242	Signal Analysis
Intermediate Electrical Option Unit	
Year 4 - Semester 1	
EGB349	Systems Engineering and Design Project
EGB243	Aircraft Systems and Flight
Year 4 - Semester 2	
EGB346	Unmanned Aircraft Systems
EGB345	Control and Dynamic

	Systems
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH446	Autonomous Systems
EGH400-1	Research Project 1
Advanced Electrical Option Unit	
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH445	Modern Control
EGH450	Advanced Unmanned Aircraft Systems
Advanced Electrical Option Unit	
Intermediate Electrical and Aerospace Option Units	
CAB403	Systems Programming
EGB342	Telecommunications and Signal Processing
EGB348	Electronics
Advanced Electrical and Aerospace Option Units	
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH448	Power Electronics
EGH449	Advanced Electronics
EGH455	Advanced Systems Design
EGH456	Embedded Systems

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice

Bachelor of Engineering (Honours)/Bachelor of Information Technology

MZB126	Engineering Computation
Year 2 - Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB210	Fundamentals of Mechanical Design
EGB214	Materials and Manufacturing
Year 3 - Semester 2	
EGB211	Dynamics
EGB314	Strength of Materials
Year 4 - Semester 1	
EGB321	Dynamics of Machines
EGB323	Fluid Mechanics
Year 4 - Semester 2	
EGB322	Thermodynamics
EGH404	Research in Engineering Practice
Year 5 - Semester 1	
EGB316	Design of Machine Elements
EGH400-1	Research Project 1
EGH414	Stress Analysis
EGH421	Vibration and Control
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH420	Mechanical Systems Design
EGH422	Advanced Thermodynamics
EGH423	Fluids Dynamics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Intermediate Mechanical Option Unit
- Advanced Electrical Option Unit
- Advanced Mechanical Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB242	Signal Analysis
EGB211	Dynamics
Year 3 - Semester 2	
EGB345	Control and Dynamic Systems
CAB202	Microprocessors and Digital Systems
Year 4 - Semester 1	
EGB220	Mechatronics Design 1
EGB321	Dynamics of Machines
Year 4 - Semester 2	
EGB320	Mechatronics Design 2
Intermediate Electrical Option Unit	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
EGH419	Mechatronics Design 3
EGH446	Autonomous Systems
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH445	Modern Control
EGH413	Advanced Dynamics
Advanced Electrical Option Unit	
Intermediate Electrical Option Unit	
CAB403	Systems Programming
EGB348	Electronics
Intermediate Mechanical Option Unit	
EGB321	Dynamics of Machines
EGB323	Fluid Mechanics
Advanced Electrical Option Unit	
EGH456	Embedded Systems
EGH455	Advanced Systems Design
EGH448	Power Electronics
EGH449	Advanced Electronics
Advanced Mechanical Option Unit	
EGH413	Advanced Dynamics
EGH423	Fluids Dynamics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB210	Fundamentals of Mechanical Design
LSB131	Anatomy
Year 3 - Semester 2	
EGB211	Dynamics
LSB231	Physiology
Year 4 - Semester 1	
EGB214	Materials and Manufacturing
EGB323	Fluid Mechanics
Year 4 - Semester 2	
EGB314	Strength of Materials
EGH404	Research in Engineering Practice
Year 5 - Semester 1	
EGB319	BioDesign

EGH400-1	Research Project 1
EGH414	Stress Analysis
EGH418	Biomechanics
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH424	Biofluids
EGH435	Modelling and Simulation for Medical Engineers
EGH438	Biomaterials

Semesters

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
CVB220	Process Principles
EGB363	Safety and Environmental Management
Year 3 - Semester 2	
CVB101	General Chemistry
EGB322	Thermodynamics
Year 4 - Semester 1	
EGB260	Operations Management and Process Economics
EGB323	Fluid Mechanics
Year 4 - Semester 2	
EGH404	Research in Engineering Practice
EGH423	Fluids Dynamics
Year 5 - Semester 1	
EGB361	Minerals and Minerals Processing
EGH400-1	Research Project 1
Plant and Process Design	
Unit Operation	
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH411	Industrial Chemistry
EGH422	Advanced Thermodynamics
EGH460	Advanced Process Modelling

Bachelor of Engineering (Honours)/Bachelor of Science

Handbook

Year	2017
QUT code	SE80
CRICOS	084924E
Duration (full-time)	5 years
OP	9
Rank	81
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $32200 per year full-time (96 credit points)
Total credit points	480
Start months	February
Int. Start Months	February
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	SEF Enquiries - (Engineering); Dr Graham Johnson (Science); email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	Dr Brian Lee (Civil); Dr Wayne Kelly (Computer & Software Systems); Dr Jacob Coetzee (Electrical); Ass. Prof Felipe Gonzalez (Electrical & Aerospace); Professor Ted Steinberg (Mechanical); Ass. Professor Jason Ford (Mechatronics); Dr Devakar Epari (Medical); and Ass. Professor Robert Speight (Process); Dr Marion Bateson (Biological Science); Dr James Blinco (Chemistry); Dr Luke Nothdurft (Earth Science); Dr Andrew Baker (Environmental Science); and Prof Nunzio Motto (Physics)

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths B
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA). Recommended study: Chemistry, Maths C and Physics.

International Subject prerequisites

- Maths B

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies. Recommended study: Chemistry, Maths C and Physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Domestic Course structure

To graduate with a Bachelor of Engineering (Honours) in SE80, students are required to complete 288 credit points of course units, as outlined below:

- First year: four (4) core units 48cp + two (2) discipline foundation units 24cp + two (2) option units 24cp (96 credit points)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

International Course structure

To graduate with a Bachelor of Engineering (Honours) in SE80, students are required to complete 288 credit points of course units, as outlined below:

- First year: four (4) core units 48cp + two (2) discipline foundation units 24cp + two (2) option units 24cp (96 credit points)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points).

Honours units to consist of:

- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

Sample Structure

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
[As of 2015, SEB101, SEB102 and SEB114 have been replaced by SEB104, SEB115 and SEB116.]	
Year 1 Semester 2	
Science Core Options Unit	
Science Core Options Unit	
Year 2 Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 2 Semester 2	
BVB101	Foundations of Biology
BVB102	Evolution
Year 3 Semester 1	
BVB201	Biological Processes
BVB202	Experimental Design and Quantitative Methods
Year 3 Semester 2	
BVB203	Plant Biology
BVB204	Ecology
Year 4 Semester 1	
BVB301	Animal Biology
BVB305	Microbiology and the Environment
Year 4 Semester 2	

BVB302	Applied Biology
BVB304	Integrative Biology

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
[As of 2015, SEB101, SEB102 and SEB114 have been replaced by SEB104, SEB115 and SEB116.]	
Year 1 Semester 2	
Science Core Options Unit	
Science Core Options Unit	
Year 2 Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 2 Semester 2	
CVB101	General Chemistry
CVB102	Chemical Structure and Reactivity
Year 3 Semester 1	
CVB201	Inorganic Chemistry
CVB202	Analytical Chemistry
Year 3 Semester 2	
CVB203	Physical Chemistry
CVB204	Organic Structure and Mechanisms
Year 4 Semester 1	
CVB301	Organic Chemistry: Strategies for Synthesis
CVB302	Applied Physical Chemistry
Year 4 Semester 2	
CVB303	Coordination Chemistry
CVB304	Chemistry Research Project

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
[As of 2015, SEB101, SEB102 and SEB114 have been replaced by SEB104, SEB115 and SEB116.]	
Year 1 Semester 2	
Science Core Options Unit	
Science Core Options Unit	
Year 2 Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 2 Semester 2	
ERB101	Earth Systems
ERB102	Evolving Earth
Year 3 Semester 1	
ERB201	Destructive Earth: Natural Hazards
ERB202	Marine Geoscience
Year 3 Semester 2	
ERB203	Sedimentary Geology and Stratigraphy
ERB204	Deforming Earth: Fundamentals of Structural Geology
Year 4 Semester 1	
ERB301	Chemical Earth
ERB302	Applied Geophysics
Year 4 Semester 2	
ERB303	Energy Resources and Basin Analysis
ERB304	Dynamic Earth: Plate Tectonics

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
SEB104	Grand Challenges in Science
SEB113	Quantitative Methods in Science
[As of 2015, SEB101, SEB102 and SEB114 have been replaced by SEB104, SEB115 and SEB116.]	
Year 1 Semester 2	
Science Core Options Unit	
Science Core Options Unit	
Year 2 Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 2 Semester 2	
ERB101	Earth Systems
EVB102	Ecosystems and the Environment
Year 3 Semester 1	
BVB202	Experimental Design and Quantitative Methods
EVB201	Global Environmental Issues
Year 3 Semester 2	
BVB204	Ecology
[EVB301 replaced by BVB204 in 2017]	
EVB203	Geospatial Information Science
Year 4 Semester 1	
EVB302	Environmental Pollution
EVB312	Soils and the Environment
[EVB212 replaced by EVB312 in 2017]	
Year 4 Semester 2	
ERB310	Groundwater Systems
[ENB380 replaced by ERB310 in 2017]	
EVB304	Case Studies in Environmental Science

Semesters

- Year 1 Semester 1
- Year 1 Semester 2
- Year 2 Semester 1
- Year 2 Semester 2
- Year 3 Semester 1
- Year 3 Semester 2
- Year 4 Semester 1
- Year 4 Semester 2

Code	Title
Year 1 Semester 1	
SEB115	Experimental Science 1
SEB116	Experimental Science 2
Year 1 Semester 2	
PVB102	Physics of the Very Small
SEB104	Grand Challenges in

Bachelor of Engineering (Honours)/Bachelor of Science

	Science
Year 2 Semester 1	
PVB210	Stellar Astrophysics
SEB113	Quantitative Methods in Science
Year 2 Semester 2	
PVB202	Mathematical Methods in Physics
Science Core Options	
Year 3 Semester 1	
PQB360	Global Energy Balance and Climate Change
PVB203	Experimental Physics
Year 3 Semester 2	
PVB204	Electromagnetism
Science Core Options	
Year 4 Semester 1	
PVB301	Materials and Thermal Physics
PVB302	Classical and Quantum Physics
Year 4 Semester 2	
PVB303	Nuclear and Particle Physics
PVB304	Physics Research

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4, Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
Foundation Unit Option	
EGB123	Civil Engineering Systems
Year 3 - Semester 1	
EGB270	Civil Engineering Materials
EGB272	Traffic and Transport Engineering
Year 3 - Semester 2	
EGB273	Principles of Construction
EGB373	Geotechnical Engineering
Year 4, Semester 1	
EGB275	Structural Mechanics
EGB371	Engineering Hydraulics
Year 4 - Semester 2	
EGB376	Steel Design
EGH471	Advanced Water Engineering
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
EGB375	Design of Concrete Structures
EGH473	Advanced Geotechnical Engineering
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH472	Advanced Highway and Pavement Engineering
EGH475	Advanced Concrete Structures
EGH479	Advances in Civil Engineering Practice

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Intermediate Software Option Unit
- Advanced Electrical Option Unit
- Advanced Software Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB242	Signal Analysis
CAB202	Microprocessors and Digital Systems
Year 3 - Semester 2	
CAB201	Programming Principles
Computer Science students must take CAB201 in your Computer and Software Systems major. Please contact Science and Engineering Faculty to have 12 credit points added to your Computer Science Unit Options List.	
Intermediate Electrical Option Unit	
Year 4 - Semester 1	
EGB240	Electronic Design
Intermediate Software Option Unit	
For students with Computer Science Major: CAB301 and CAB302 are core to the Computer Science Major. Please contact Science and Engineering Faculty to be provided a list of additional units you can select from.	
Year 4 - Semester 2	
CAB403	Systems Programming
Intermediate Electrical or Software Option Unit	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
Advanced Electrical or Software Option Unit	
EGH400-1	Research Project 1
EGH456	Embedded Systems
Year 5 - Semester 2	
EGH400-2	Research Project 2
Advanced Software Option Unit	
Advanced Electrical Option Unit	
EGH455	Advanced Systems Design
Intermediate Electrical Option Unit	
EGB348	Electronics
EGB345	Control and Dynamic Systems

Bachelor of Engineering (Honours)/Bachelor of Science

EGB342	Telecommunications and Signal Processing
Intermediate Software Option Unit	
CAB302	Software Development
CAB301	Algorithms and Complexity
Advanced Electrical Option Unit	
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics
Advanced Software Option Unit	
CAB432	Cloud Computing
CAB401	High Performance and Parallel Computing

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Advanced Electrical Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
CAB202	Microprocessors and Digital Systems
Year 3 - Semester 1	
EGB240	Electronic Design
EGB241	Electromagnetics and Machines
Year 3 - Semester 2	
EGB242	Signal Analysis
Intermediate Electrical Option Unit (1)	
Year 4 - Semester 1	
EGB340	Design and Practice
Foundation Unit Option	
Year 4 - Semester 2	
Intermediate Electrical Option Unit (2)	
Intermediate Electrical Option Unit (3)	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
Advanced Electrical Option Unit (1)	
Advanced Electrical Option Unit (2)	
Year 5 - Semester 2	
EGH400-2	Research Project 2
Advanced Electrical Option Unit (3)	
Advanced Electrical Option Unit (4)	
Advanced Electrical Option Unit (5)	
Intermediate Electrical Option Unit	
EGB341	Energy Supply and Delivery
EGB342	Telecommunications and Signal Processing
EGB345	Control and Dynamic Systems
EGB348	Electronics
Advanced Electrical Option Unit	
EGH440	Power Systems Analysis
EGH441	Power System Modelling
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical Option Unit
- Advanced Electrical Option Unit

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
CAB202	Microprocessors and Digital Systems
EGB241	Electromagnetics and Machines
Year 3 - Semester 2	
EGB242	Signal Analysis
Intermediate Electrical Option Unit (1)	
Year 4 - Semester 1	
EGB340	Design and Practice
EGB240	Electronic Design
Year 4 - Semester 2	
Intermediate Electrical Option Unit (2)	
Intermediate Electrical Option Unit (3)	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
Advanced Electrical Option Unit (1)	
Advanced Electrical Option Unit (2)	
Year 5 - Semester 2	
EGH400-2	Research Project 2
Advanced Electrical Option Unit (3)	
Advanced Electrical Option Unit (4)	
Advanced Electrical Option Unit (5)	
Intermediate Electrical Option Unit	
EGB341	Energy Supply and Delivery
EGB342	Telecommunications and Signal Processing
EGB345	Control and Dynamic Systems

Bachelor of Engineering (Honours)/Bachelor of Science

EGB348	Electronics
Advanced Electrical Option Unit	
EGH440	Power Systems Analysis
EGH441	Power System Modelling
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH445	Modern Control
EGH446	Autonomous Systems
EGH448	Power Electronics
EGH449	Advanced Electronics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2
- Intermediate Electrical and Aerospace Option Units
- Advanced Electrical and Aerospace Option Units

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
CAB202	Microprocessors and Digital Systems
EGB240	Electronic Design
Year 3 - Semester 2	
EGB242	Signal Analysis
Intermediate Electrical Option Unit	
Year 4 - Semester 1	
EGB349	Systems Engineering and Design Project
EGB243	Aircraft Systems and Flight
Year 4 - Semester 2	
EGB346	Unmanned Aircraft Systems
EGB345	Control and Dynamic Systems
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH446	Autonomous Systems
EGH400-1	Research Project 1
Advanced Electrical Option Unit	
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH445	Modern Control
EGH450	Advanced Unmanned Aircraft Systems
Advanced Electrical Option Unit	
Intermediate Electrical and Aerospace Option Units	
CAB403	Systems Programming
EGB342	Telecommunications and Signal Processing
EGB348	Electronics
Advanced Electrical and Aerospace Option Units	
EGH442	RF Techniques and Applications
EGH443	Advanced Telecommunications
EGH444	Digital Signals and Image Processing
EGH448	Power Electronics
EGH449	Advanced Electronics
EGH455	Advanced Systems Design
EGH456	Embedded Systems

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1
- Year 4 - Semester 2
- Year 5 - Semester 1
- Year 5 - Semester 2

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB210	Fundamentals of Mechanical Design
EGB214	Materials and Manufacturing
Year 3 - Semester 2	
EGB211	Dynamics
EGB314	Strength of Materials
Year 4 - Semester 1	
EGB321	Dynamics of Machines
EGB323	Fluid Mechanics
Year 4 - Semester 2	
EGB322	Thermodynamics
EGH404	Research in Engineering Practice
Year 5 - Semester 1	
EGB316	Design of Machine Elements
EGH400-1	Research Project 1
EGH414	Stress Analysis
EGH421	Vibration and Control
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH420	Mechanical Systems Design
EGH422	Advanced Thermodynamics
EGH423	Fluids Dynamics

Semesters

- Year 1 - Semester 1
- Year 1 - Semester 2
- Year 2 - Semester 1
- Year 2 - Semester 2
- Year 3 - Semester 1
- Year 3 - Semester 2
- Year 4 - Semester 1

Bachelor of Engineering (Honours)/Bachelor of Science

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB111	Foundation of Engineering Design
EGB121	Engineering Mechanics
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB242	Signal Analysis
EGB211	Dynamics
Year 3 - Semester 2	
EGB345	Control and Dynamic Systems
CAB202	Microprocessors and Digital Systems
Year 4 - Semester 1	
EGB220	Mechatronics Design 1
EGB321	Dynamics of Machines
Year 4 - Semester 2	
EGB320	Mechatronics Design 2
Intermediate Electrical Option Unit	
Year 5 - Semester 1	
EGH404	Research in Engineering Practice
EGH400-1	Research Project 1
EGH419	Mechatronics Design 3
EGH446	Autonomous Systems
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH445	Modern Control
EGH413	Advanced Dynamics
Advanced Electrical Option Unit	

Intermediate Electrical Option Unit	
CAB403	Systems Programming
EGB348	Electronics
Intermediate Mechanical Option Unit	
EGB321	Dynamics of Machines
EGB323	Fluid Mechanics
Advanced Electrical Option Unit	
EGH456	Embedded Systems
EGH455	Advanced Systems Design
EGH448	Power Electronics
EGH449	Advanced Electronics
Advanced Mechanical Option Unit	
EGH413	Advanced Dynamics
EGH423	Fluids Dynamics

Semesters

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
EGB210	Fundamentals of Mechanical Design
LSB131	Anatomy
Year 3 - Semester 2	
EGB211	Dynamics
LSB231	Physiology

Year 4 - Semester 1	
EGB214	Materials and Manufacturing
EGB323	Fluid Mechanics
Year 4 - Semester 2	
EGB314	Strength of Materials
EGH404	Research in Engineering Practice
Year 5 - Semester 1	
EGB319	BioDesign
EGH400-1	Research Project 1
EGH414	Stress Analysis
EGH418	Biomechanics
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH424	Biofluids
EGH435	Modelling and Simulation for Medical Engineers
EGH438	Biomaterials

Semesters

Code	Title
Year 1 - Semester 1	
EGB113	Energy in Engineering Systems
MZB125	Introductory Engineering Mathematics
OR	
MXB161	Computational Explorations
Year 1 - Semester 2	
EGB100	Engineering Sustainability and Professional Practice
MZB126	Engineering Computation
Year 2 - Semester 1	
EGB121	Engineering Mechanics
EGB111	Foundation of Engineering Design
Year 2 - Semester 2	
EGB120	Foundations of Electrical Engineering
Foundation Unit Option	
Year 3 - Semester 1	
CVB220	Process Principles

EGB363	Safety and Environmental Management
Year 3 - Semester 2	
CVB101	General Chemistry
EGB322	Thermodynamics
Year 4 - Semester 1	
EGB260	Operations Management and Process Economics
EGB323	Fluid Mechanics
Year 4 - Semester 2	
EGH404	Research in Engineering Practice
EGH423	Fluids Dynamics
Year 5 - Semester 1	
EGB361	Minerals and Minerals Processing
EGH400-1	Research Project 1
Plant and Process Design	
Unit Operation	
Year 5 - Semester 2	
EGH400-2	Research Project 2
EGH411	Industrial Chemistry
EGH422	Advanced Thermodynamics
EGH460	Advanced Process Modelling

Bachelor of Science (Honours)

Handbook

Year	2017
QUT code	ST10
CRICOS	080487J
Duration (full-time)	1 year
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $32500 per year full-time (96 credit points)
Total credit points	96
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Course Coordinator	Dr Konstantin Momot; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Dr Melody de Laat (Biological Sciences), Dr James Blinco (Chemistry), Dr Christoph Schrank (Earth Sciences), Professor Stuart Parsons (Environmental Science), Dr Konstantin Momot (Physics)

Domestic Entry requirements

Academic entry requirements

A completed recognised bachelor degree in science or equivalent with a minimum grade point average (GPA) score of 4.5 (on a 7-point scale), completed within the last five years.

International Entry requirements

Academic entry requirements

A completed recognised bachelor degree in science or equivalent with a minimum grade point average (GPA) score of 4.5 (on a 7-point scale), completed within the last five years.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Overview

The Bachelor of Science (Honours) allows you to further develop specific areas of expertise in science by providing extended modern and rigorous training in science. It prepares you both for higher-level graduate careers in industry and government and for research at PhD or Research Masters level.

Through a combination of research and advanced coursework units, you will pursue specialised studies in an area of mutual interest with a personal research mentor/supervisor. You will develop high level skills in a specific discipline area (Biological Science, Earth Science, Environmental Science, Chemistry or Physics) and acquire research skills appropriate to your discipline. Coursework units provide you the opportunity to develop much more advanced skills and knowledge compared with those built in the undergraduate course. You will design and undertake experimental programs in either laboratory or field settings to solve complex problems. A research project allows you to demonstrate your advanced academic capability and culminates in the completion of an honours thesis.

Course Design

Requirements for the completion of ST10 Bachelor of Science(Honours) (Study Area A) are as follows:

STUDY AREA A: 96 credit points (6 units) comprising One (1) Major from the following:

- Biological Sciences
- Chemistry
- Earth Science
- Environmental Science
- Physics

Each Major is comprised of the Core units Foundations of Research and Reviewing the Field, and the choice of either the *Expanded Research* Strand or the *Extended Coursework* Strand.

Each strand comprises of coursework and a major research project supervised by QUT staff.

Career Outcomes

Research, Graduate employment in industry or government.

Professional Recognition

Membership in professional organisations is not specifically tied to the completion of an Honours degree as entry requirements are met by the completion of the Bachelors degree.

Pathways to Further Study

The QUT Bachelor of Science (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Honours provides the key research pathway to postgraduate study. The program is designed to easily articulate into a Master of Science (Research) with one year advanced standing or into a PhD (depending upon the level of Honours attained).

Domestic Course structure

You must complete 96 credit points (8 units) from one of the following study areas:

- Biological Sciences
- Chemistry
- Earth Science
- Environmental Science
- Physics

International Course structure

You must complete 96 credit points (8 units) from one of the following study areas:

- Biological Sciences

- Chemistry
- Earth Science
- Environmental Science
- Physics

Sample Structure

Code	Title
Semester 1	
SEB400	Foundations of Research
SEB402	Project Proposal
SEB410	Advanced Topic 1
SEB403-1	Honours Research Project-1
Semester 2	
SEB403-2	Honours Research Project-2
SEB403-3	Honours Research Project-3
SEB403-4	Honours Research Project-4
SEB411	Advanced Topic 2

Code	Title
Semester 1	
SEB400	Foundations of Research
SEB402	Project Proposal
SEB410	Advanced Topic 1
SEB403-1	Honours Research Project-1
Semester 2	
SEB403-2	Honours Research Project-2
SEB403-3	Honours Research Project-3
SEB403-4	Honours Research Project-4
SEB411	Advanced Topic 2

Code	Title
Semester 1	
SEB400	Foundations of Research
SEB402	Project Proposal
SEB410	Advanced Topic 1
SEB403-1	Honours

	Research Project-1
Semester 2	
SEB411	Advanced Topic 2
SEB403-2	Honours Research Project-2
SEB403-3	Honours Research Project-3
SEB403-4	Honours Research Project-4

Code	Title
Semester 1	
SEB400	Foundations of Research
SEB402	Project Proposal
SEB410	Advanced Topic 1
SEB403-1	Honours Research Project-1
Semester 2	
SEB403-2	Honours Research Project-2
SEB403-3	Honours Research Project-3
SEB403-4	Honours Research Project-4
SEB411	Advanced Topic 2

Code	Title
Semester 1	
SEB400	Foundations of Research
SEB402	Project Proposal
SEB410	Advanced Topic 1
SEB403-1	Honours Research Project-1
Semester 2	
SEB411	Advanced Topic 2
SEB403-2	Honours Research Project-2
SEB403-3	Honours Research Project-3
SEB403-4	Honours Research Project-4

Bachelor of Urban Development (Honours)

Handbook

Year	2017
QUT code	UD01
CRICOS	080479J
Duration (full-time)	4 years
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9500 per year full-time (96 credit points)
International fee (indicative)	2017: $27900 per year full-time (96 credit points)
Total credit points	384
Start months	February, July
Int. Start Months	February, July
Course Coordinator	Dr Andrea Blake; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Overview

This program has been designed to provide you with a real life exposure to a range of urban development disciplines to understand how your chosen course helps to prepare you for a rewarding career in the built environment. You have the opportunity to collaborate with your peers and teaching staff at QUT and to learn in exciting new learning environments. Throughout the course you will experience a range of site visits and fieldwork that will link the theory in lectures to everyday situations in your chosen field of study. You will learn about a range of career opportunities and professional outcomes that will enable you to optimise your experience and potential career. Your major will provide you with in depth knowledge and expertise in an urban development discipline. You will also have the opportunity to undertake a second major or two minors in an area that will broaden your urban development experience and/or complement your first major.

Course Design

Your QUT Bachelor of Urban Develoment (Honours) degree consists of 384 credit points (32 units) arranged as follows:

(a) 72 credit points (6 units) of Urban Development Core units, which includes a Work Integrated Learning unit that requires completion of workplace learning.

(b) 216 credit points (18 units) comprising one (1) major from the following:

- Construction Management
-
- Quantity Surveying and Cost Engineering
-
- Urban and Regional Planning

(c)

96 credit points of complementary studies comprising of either a Second Major (8 unit set) or two Minors (4 unit set each) from the options specified for your chosen major.

Pathways to Further Study

The (UD01) Bachelor of Urban Development (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates may be eligible for discipline relevant Masters and/or Doctoral level programs

Domestic Course structure

Course Design

Your QUT Bachelor of Urban Develoment (Honours) degree consists of 384 credit points (32 units) arranged as follows:

(a) 72 credit points (6 units) of Urban Development Core units, which includes a Work Integrated Learning unit that requires completion of workplace learning.
(b) 216 credit points (18 units) comprising one (1) major from the following:

- Construction Management
- Quantity Surveying and Cost Engineering
- Urban and Regional Planning

(c) 96 credit points of complementary studies comprising of either a Second Major (8 unit set) or two Minors (4 unit set each) from the options specified for your chosen major.

International Course structure

Course Design

Your QUT Bachelor of Urban Develoment (Honours) degree consists of 384 credit points (32 units) arranged as follows:

(a) 72 credit points (6 units) of Urban Development Core units, which includes a Work Integrated Learning unit that requires completion of workplace learning.
(b) 216 credit points (18 units) comprising one (1) major from the following:

- Construction Management
- Quantity Surveying and Cost Engineering
- Urban and Regional Planning

(c) 96 credit points of complementary studies comprising of either a Second Major (8 unit set) or two Minors (4 unit set each) from the options specified for your chosen major.

Bachelor of Urban Development (Honours) (Construction Management)

Handbook

Year	2017
QUT code	UD01
CRICOS	080479J
Duration (full-time)	4 years
OP	11
Rank	76
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9500 per year full-time (96 credit points)
International fee (indicative)	2017: $27900 per year full-time (96 credit points)
Total credit points	384
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Andrea Blake; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Dr Carol Hon sef.enquiry@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths A, B or C
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

International Subject prerequisites

- Maths A, B or C

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Overview

The QUT Bachelor of Urban Development (Honours) degree with a primary major (Study Area A) in Construction Management is designed to provide you with 'real-life' exposure, and the knowledge and skills to prepare you for rewarding career the Construction, Development and associated industries. With the capacity, will and innovation to contribute to a better built environment, as a work-ready graduate, you will be able to apply sound judgement and expertise in practice managing complex built environments.

Course Design

Your QUT Bachelor of Urban Development (Honours) (Construction Management) degree consists of 384 credit points (32 units) arranged as follows:

a) 72 credit points (6 units) of Urban Development Core units, which includes a Work Integrated Learning unit that requires completion of workplace learning.

b) 216 credit points (18 units) of Construction Management discipline units

c) 96 credit points of complementary studies comprising of either a Second Major (8 unit set) or two Minors (4 unit set each).

Urban Development Core Units

These units will engage you in understanding Urban Development from a range of disciplinary and multidisciplinary perspectives, expose you to the various outcomes available for pursuing studies in this field and introduce the fundamental basis for policy and practice. Later core units, together with the discipline specific units, will progress your learning development through experiential and enquiry based learning in collaborative environments.

Construction Management Major Discipline Units

These units give you discipline level knowledge, skills and application competencies from introductory through intermediate, culminating with advanced graduate level units. They focus on developing your knowledge, practice and higher order thinking to an advanced level.

Complementary Studies Options

Second Major:

A choice of one second major from:

Urban Development disciplines:
•Urban and Regional Planning Studies
•Property
•Accountancy
•Applied Economics and Finance

(additional second major choices are currently under development)

Minors:

A choice of two minors from the lists below:

Urban Development disciplines:
•Urban and Regional Planning Studies
•Property Development
•Property Investment and Finance
•Property Valuation

Other disciplines:
•Language Minors – University Wide Options
•University Wide Minors

Special Course Requirements

You are required to obtain a minimum of 80 days of approved construction management industrial experience as part of your Work Integrated Learning core unit.

Professional Recognition

Graduates are eligible for membership of the Australian Institute of Building (AIB)

Pathways to Further Study

The (UD01) Bachelor of Urban Development (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates may be eligible for discipline relevant Masters and/or Doctoral level programs

Domestic Course structure

Your QUT Bachelor of Urban Development (Honours) (Construction Management) degree consists of 384 credit points (32 units) arranged as follows:

a) 72 credit points (6 units) of urban development core units, which includes a work integrated learning unit that requires completion of workplace learning

b) 216 credit points (18 units) of construction management discipline units

c) 96 credit points of complementary studies comprising of either a second major (8 unit set) or two minors (4 unit set each).

Urban development core units

These units will engage you in understanding urban development from a range of disciplinary and multidisciplinary perspectives, expose you to the various outcomes available for pursuing studies in this field and introduce the fundamental basis for policy and practice. Later core units, together with the discipline specific units, will progress your learning development through experiential and enquiry based learning in collaborative environments.

Construction management major discipline units

These units give you discipline level knowledge, skills and application competencies from introductory through intermediate, culminating with advanced graduate level units. They focus on developing your knowledge, practice and higher-order thinking to an advanced level.

Complementary studies options

Complementary studies may be taken as a second major of 96 credit points or two minors of 48 credit points each. Experiential minors in work integrated learning as well as student exchange are also available.

Second majors

A second major provides the opportunity for you to undertake significant studies in a second urban development discipline such as Property Economics, Urban and Regional Planning, Architectural Studies, Accountancy or Applied Economics and Finance. Second majors are also designed to provide diverse professional skills and knowledge beyond the traditional reaches of the built environment curriculum and can offer a range of study options in other fields.

Minors

Minors will allow you undertake studies in a companion discipline. They are designed to provide you with introductory to intermediate level knowlege and skills in areas complementary to your studies. You can choose a minor from other built environment disciplines. There are also minors designed to distinguish students in the employment marketplace with complementary non-discipline skills and competencies that you can choose from a range of inter- and intra-faculty disciplines.

Pathways to further study

The (UD01) Bachelor of Urban Development (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates may be eligible for discipline relevant masters and/or doctoral level programs.

International Course structure

Your QUT Bachelor of Urban Development (Honours) (Construction Management) degree consists of 384 credit points (32 units) arranged as follows:

a) 72 credit points (6 units) of urban development core units, which includes a work integrated learning unit that requires completion of workplace learning

b) 216 credit points (18 units) of construction management discipline units

c) 96 credit points of complementary studies comprising of either a second major (8 unit set) or two minors (4 unit set each).

Urban development core units

These units will engage you in understanding urban development from a range of disciplinary and multidisciplinary perspectives, expose you to the various outcomes available for pursuing studies in this field and introduce the fundamental basis for policy and practice. Later core units, together with the discipline specific units, will progress your learning development through experiential and enquiry based learning in collaborative environments.

Construction management major discipline units

These units give you discipline level knowledge, skills and application competencies from introductory through intermediate, culminating with advanced graduate level units. They focus on developing your knowledge, practice and higher order thinking to an advanced level.

Complementary studies options

Complementary studies may be taken as a second major of 96 credit points or two minors of 48 credit points each. Experiential minors in work integrated learning as well as student exchange are also available.

Second majors

A second major provides the opportunity for you to undertake significant studies in a second urban development discipline such as Property Economics, Urban and Regional Planning, Architectural Studies, Accountancy or Applied Economics and Finance. Second majors are also designed to provide diverse professional skills and knowledge beyond the traditional reaches of the built environment curriculum and can offer a range of study options in other fields.

Minors

Minors will allow you undertake studies in a companion discipline. They are designed to provide you with introductory to intermediate level knowlege and skills in areas complementary to your studies. You can choose a minor from other built environment disciplines. There are also minors designed to distinguish students in the employment marketplace with complementary non-discipline skills and competencies that you can choose from a range of inter- and intra-faculty disciplines.

Pathways to further study

The (UD01) Bachelor of Urban Development (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates may be

eligible for discipline relevant masters and/or doctoral level programs.

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
USB100	Understanding the Built Environment
UXB110	Residential Construction
UXB111	Imagine Construction Management
UXB112	Introduction to Structures
Year 1, Semester 2	
BSB113	Economics
LWS012	Urban Development Law
UXB113	Measurement for Construction
UXB114	Integrated Construction
Year 2, Semester 1	
UXB210	Commercial Construction
UXB211	Building Services
UXB213	Advanced Measurement for Construction
2nd Major/Minor unit	
Year 2, Semester 2	
UXB212	Designing Structures
UXB214	Construction Estimating
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
USB300	Property Development
UXH310	High-rise Construction
UXH311	Contract Administration
2nd Major/Minor unit	
Year 3, Semester 2	
UXB301	Work Integrated Learning Built Environment
SEB701 Work Integrated Learning is replaced by UXB301 from S2, 2017	
UXH312	Construction Legislation
UXH314	Modern Construction Business
2nd Major/Minor unit	
Year 4, Semester 1	
UXH300	Research Methods Built Environment
UXH400-1	Research Project 1 - Part A
UXH411	Programming and Scheduling
2nd Major/Minor unit	
Year 4, Semester 2	
UXH400-2	Research Project 1 - Part B
UXH410	Strategic Construction Management
2nd Major/Minor unit	
2nd Major/Minor unit	

Bachelor of Urban Development (Honours) (Quantity Surveying and Cost Engineering)

Handbook

Year	2017
QUT code	UD01
CRICOS	080479J
Duration (full-time)	4 years
OP	11
Rank	76
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9500 per year full-time (96 credit points)
International fee (indicative)	2017: $27900 per year full-time (96 credit points)
Total credit points	384
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Andrea Blake; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Mr Jason Gray sef.enquiry@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- Maths A, B or C
- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

International Subject prerequisites

- Maths A, B or C

You must have achieved this study at a level comparable to Australian Year 12 or in recognised post-secondary studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Overview

The QUT Bachelor of Urban Development (Honours) degree with a primary major (Study Area A) in Quantity Surveying and Cost Engineering is designed to provide you with 'real-life' exposure, and the knowledge and skills to prepare you for rewarding career the Construction, Resources and associated industries. With the capacity, will and innovation to contribute to a better built environment, as a work-ready graduate, you will be able to apply sound judgement and expertise in practice within your chosen field.

Course Design

Your QUT Bachelor of Urban Development (Honours) (Quantity Surveying and Cost Engineering) degree consists of 384 credit points (32 units) arranged as follows:

a) 72 credit points (6 units) of Urban Development Core units, which includes a Work Integrated Learning unit that requires completion of workplace learning.

b) 216 credit points (18 units) of Quantity Surveying and Cost Engineering discipline units

c) 96 credit points of complementary studies comprising of either a Second Major (8 unit set) or two Minors (4 unit set each).

Urban Development Core Units

These units will engage you in understanding Urban Development from a range of disciplinary and multidisciplinary perspectives, expose you to the various outcomes available for pursuing studies in this field and introduce the fundamental basis for policy and practice. Later core units, together with the discipline specific units, will progress your learning development through experiential and enquiry based learning in collaborative environments.

Quantity Surveying and Cost Engineering Major Discipline Units

These units give you discipline level knowledge, skills and application competencies from introductory through intermediate, culminating with advanced graduate level units. They focus on developing your knowledge, practice and higher order thinking to an advanced level.

Complementary Studies Options

Second Major:

A choice of one second major from:

Urban Development disciplines:
•Urban and Regional Planning Studies
•Property
•Accountancy
•Applied Economics and Finance

(additional second major choices are currently under development)

Minors:

A choice of two minors from the lists below:

Urban Development disciplines:
•Urban and Regional Planning Studies
•Property Development
•Property Investment and Finance
•Property Valuation

Other disciplines:
•Language Minors – University Wide Options

•University Wide Minors

Special Course Requirements

You are required to obtain a minimum of 80 days of approved quantity surveying and cost engineering industrial experience as part of your Work Integrated Learning core unit.

Professional Recognition

Graduates are eligible for membership of the Australian Institute of Quantity Surveyors (AIQS), the Royal Institution of Chartered Surveyors (RICS) and Board of Quantity Surveyors Malaysia (BQSM).

Pathways to Further Study

The (UD01) Bachelor of Urban Development (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates may be eligible for discipline relevant Masters and/or Doctoral level programs

Domestic Course structure

Your QUT Bachelor of Urban Development (Honours) (Quantity Surveying and Cost Engineering) degree consists of 384 credit points (32 units) arranged as follows:

a) 72 credit points (6 units) of urban development core units, which includes a work integrated learning unit that requires completion of workplace learning

b) 216 credit points (18 units) of quantity surveying and cost engineering discipline units

c) 96 credit points of complementary studies comprising of either a second major (8 unit set) or two minors (4 unit set each).

Urban development core units

These units will engage you in understanding urban development from a range of disciplinary and multidisciplinary perspectives, expose you to the various outcomes available for pursuing studies in this field and introduce the fundamental basis for policy and practice. Later core units, together with the discipline specific units, will progress your learning development through experiential and enquiry based learning in collaborative environments.

Quantity surveying and cost engineering major discipline units

These units give you discipline level knowledge, skills and application competencies from introductory through intermediate, culminating with advanced graduate level units. They focus on developing your knowledge, practice and higher-order thinking to an advanced level.

Complementary studies options

Complementary studies may be taken as a second major of 96 credit points or two minors of 48 credit points each. Experiential minors in work integrated learning as well as student exchange are also available.

Second majors

A second major provides the opportunity for you to undertake significant studies in a second Urban Development discipline such as Property Economics, Urban and Regional Planning, Architectural Studies, Accountancy or Applied Economics and Finance. Second majors are also designed to provide diverse professional skills and knowledge beyond the traditional reaches of the built environment curriculum and can offer a range of study options in other fields.

Minors

Minors will allow you undertake studies in a companion discipline. They are designed to provide you with introductory to intermediate level knowlege and skills in areas complementary to your studies. You can choose a minor from other built environment disciplines. There are also minors designed to distinguish students in the employment marketplace with complementary non-discipline skills and competencies that you can choose from a range of inter- and intra-faculty disciplines.

Pathways to further study

The (UD01) Bachelor of Urban Development (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates may be eligible for discipline relevant masters and/or doctoral level programs.

International Course structure

Your QUT Bachelor of Urban Development (Honours) (Quantity Surveying and Cost Engineering) degree consists of 384 credit points (32 units) arranged as follows:

a) 72 credit points (6 units) of Urban Development Core units, which includes a Work Integrated Learning unit that requires completion of workplace learning.

b) 216 credit points (18 units) of Quantity Surveying and Cost Engineering discipline units

c) 96 credit points of complementary studies comprising of either a Second Major (8 unit set) or two Minors (4 unit set each).

Urban Development Core Units

These units will engage you in understanding Urban Development from a range of disciplinary and multidisciplinary perspectives, expose you to the various outcomes available for pursuing studies in this field and introduce the fundamental basis for policy and practice. Later core units, together with the discipline specific units, will progress your learning development through experiential and enquiry based learning in collaborative environments.

Quantity Surveying and Cost Engineering Major Discipline Units

These units give you discipline level knowledge, skills and application competencies from introductory through intermediate, culminating with advanced graduate level units. They focus on developing your knowledge, practice and higher-order thinking to an advanced level.

Complementary Studies Options

Complementary studies may be taken as a Second Major of 96 credit points or two Minors of 48 credit points each. Experiential minors in Work Integrated Learning as well as student exchange are also available.

Second Majors

A second major provides the opportunity for you to undertake significant studies in a second Urban Development discipline such as Property Economics, Urban and Regional Planning, Architectural Studies, Accountancy or Applied Economics and Finance. Second majors are also designed to provide diverse professional skills and knowledge beyond the traditional reaches of the built environment curriculum and can offer a range of study options in other fields.

Minors

Minors will allow you undertake studies in a companion discipline. They are designed to provide you with introductory to intermediate level knowlege and skills in areas complementary to your studies. You can choose a minor from other built environment disciplines. There are also minors designed to distinguish students in the employment marketplace with complementary 'non-discipline' skills and competencies that you can choose from a range of inter- and intra-faculty disciplines.

Bachelor of Urban Development (Honours) (Quantity Surveying and Cost Engineering)

Pathways to Further Study

The (UD01) Bachelor of Urban Development (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates may be eligible for discipline relevant Masters and/or Doctoral level programs.

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Code	Title
Year 1, Semester 1	
USB100	Understanding the Built Environment
UXB110	Residential Construction
UXB120	Introduction to Heavy Engineering Sector Technology
UXB121	Imagine Quantity Surveying and Cost Engineering
Year 1, Semester 2	
BSB113	Economics
LWS012	Urban Development Law
UXB113	Measurement for Construction
UXB114	Integrated Construction
Year 2, Semester 1	
UXB210	Commercial Construction
UXB211	Building Services
UXB213	Advanced Measurement for Construction
2nd Major/Minor unit	
Year 2, Semester 2	
UXB214	Construction Estimating
UXB220	Services and Heavy Engineering Measurement
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
USB300	Property Development
UXH310	High-rise Construction
UXH311	Contract Administration
2nd Major/Minor unit	
Year 3, Semester 2	
UXB301	Work Integrated Learning Built Environment
SEB701 Work Integrated Learning is replaced by UXB301 from S2, 2017	
UXH314	Modern Construction Business
UXH321	Cost Planning and Controls
2nd Major/Minor unit	
Year 4, Semester 1	
UXH300	Research Methods Built Environment
UXH400-1	Research Project 1 - Part A
UXH420	Risk Management in the Resources Sector
2nd Major/Minor unit	
Year 4, Semester 2	
UXH312	Construction Legislation
UXH400-2	Research Project 1 - Part B
2nd Major/Minor unit	
2nd Major/Minor unit	

Bachelor of Urban Development (Honours) (Urban and Regional Planning)

Handbook

Year	2017
QUT code	UD01
CRICOS	080479J
Duration (full-time)	4 years
OP	11
Rank	76
OP Guarantee	Yes
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9500 per year full-time (96 credit points)
International fee (indicative)	2017: $27900 per year full-time (96 credit points)
Total credit points	384
Start months	February, July
Int. Start Months	February, July
Deferment	You can defer your offer and postpone the start of your course for one year.
Course Coordinator	Dr Andrea Blake; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Dr Severine Mayere sef.enquiry@qut.edu.au

Domestic Assumed knowledge

Before you start this course we assume you have sound knowledge in these areas

- English

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Overview

The QUT Bachelor of Urban Development (Honours) degree with a primary major (Study Area A) in Urban and Regional Planning is designed to provide you with 'real-life' exposure and knowledge and expertise in the field to design and administer plans and policy at neighbourhood, local, regional and state levels. With the capacity and will to contribute to a better built environment, as a work-ready graduate, you will be able to apply your perceptive sensibilities and skills in practice to create sustainable natural and human environments.

Course Design

Your QUT Bachelor of Urban Development (Honours) (Urban and Regional Planning) degree consists of 384 credit points (32 units) arranged as follows:

a) 72 credit points (6 units) of Urban Development Core units, which includes a Work Integrated Learning unit that requires completion of workplace learning.

b) 216 credit points (18 units) of Urban and Regional Planning discipline units

c) 96 credit points of complementary studies comprising of either a Second Major (8 unit set) or two Minors (4 unit set each).

Urban Development Core Units

These units will engage you in understanding Urban Development from a range of disciplinary and multidisciplinary perspectives, expose you to the various outcomes available for pursuing studies in this field and introduce the fundamental basis for policy and practice. Later core units, together with the discipline specific units, will progress your learning development through experiential and enquiry based learning in collaborative environments.

Urban and Regional Planning Major Discipline Units

These units give you discipline level knowledge, skills and application competencies from introductory through intermediate, culminating with advanced graduate level units. They focus on developing your knowledge, practice and higher order thinking to an advanced level.

Complementary Studies Options

Second Major:

A choice of one second major from:

Urban Development disciplines:
•Urban Development Construction
•Property
•Accountancy
•Applied Economics and Finance

(additional second major choices are currently under development)

Minors:

A choice of two minors from the lists below:

Urban Development disciplines:
•Residential Construction
•Administration in Construction
•Building Economics
•Property Development
•Property Investment and Finance
•Property Valuation

Other disciplines:
•Urban Design
•Language Minors – University Wide Options
•University Wide Minors

Professional Recognition

Graduates are eligible for membership of the Planning Institute of Australia (PIA)

Bachelor of Urban Development (Honours) (Urban and Regional Planning)

Pathways to Further Study

The (UD01) Bachelor of Urban Development (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates may be eligible for discipline relevant Masters and/or Doctoral level programs

Domestic Course structure

Your QUT Bachelor of Urban Development (Honours) (Urban and Regional Planning) degree consists of 384 credit points (32 units) arranged as follows:

a) 72 credit points (6 units) of urban development core units, which includes a work integrated learning unit that requires completion of workplace learning

b) 216 credit points (18 units) of urban and regional planning discipline units

c) 96 credit points of complementary studies comprising of either a second major (8 unit set) or two minors (4 unit set each).

Urban development core units

These units will engage you in understanding urban development from a range of disciplinary and multidisciplinary perspectives, expose you to the various outcomes available for pursuing studies in this field and introduce the fundamental basis for policy and practice. Later core units, together with the discipline specific units, will progress your learning development through experiential and enquiry based learning in collaborative environments.

Urban and regional planning major discipline units

These units give you discipline level knowledge, skills and application competencies from introductory through intermediate, culminating with advanced graduate level units. They focus on developing your knowledge, practice and higher-order thinking to an advanced level.

Complementary studies options

Complementary studies may be taken as a second major of 96 credit points or two minors of 48 credit points each. Experiential minors in work integrated learning as well as student exchange are also available.

Second majors

A second major provides the opportunity for you to undertake significant studies in a second Urban Development discipline such as Property Economics, Construction Management, Architectural Studies, Accountancy, Applied Economics and Finance. Second majors are also designed to provide diverse professional skills and knowledge beyond the traditional reaches of the built environment curriculum and can offer a range of study options in other fields.

Minors

Minors will allow you undertake studies in a companion discipline. They are designed to provide you with introductory to intermediate level knowlege and skills in areas complementary to your studies. You can choose a minor from other built environment disciplines. There are also minors designed to distinguish students in the employment marketplace with complementary non-discipline' skills and competencies that you can choose from a range of inter- and intra-faculty disciplines.

Pathways to further study

The (UD01) Bachelor of Urban Development (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates may be eligible for discipline relevant masters and/or doctoral level programs.

International Course structure

Your QUT Bachelor of Urban Development (Honours) (Urban and Regional Planning) degree consists of 384 credit points (32 units) arranged as follows:

a) 72 credit points (6 units) of Urban Development Core units, which includes a Work Integrated Learning unit that requires completion of workplace learning.

b) 216 credit points (18 units) of Urban and Regional Planning discipline units

c) 96 credit points of complementary studies comprising of either a Second Major (8 unit set) or two Minors (4 unit set each).

Urban Development Core Units

These units will engage you in understanding Urban Development from a range of disciplinary and multidisciplinary perspectives, expose you to the various outcomes available for pursuing studies in this field and introduce the fundamental basis for policy and practice. Later core units, together with the discipline specific units, will progress your learning development through experiential and enquiry based learning in collaborative environments.

Urban and Regional Planning Major Discipline Units

These units give you discipline level knowledge, skills and application competencies from introductory through intermediate, culminating with advanced graduate level units. They focus on developing your knowledge, practice and higher-order thinking to an advanced level.

Complementary Studies Options

Complementary studies may be taken as a Second Major of 96 credit points or two Minors of 48 credit points each. Experiential minors in Work Integrated Learning as well as student exchange are also available.

Second Majors

A second major provides the opportunity for you to undertake significant studies in a second Urban Development discipline such as Property Economics, Construction Management, Architectural Studies, Accountancy, Applied Economics and Finance. Second majors are also designed to provide diverse professional skills and knowledge beyond the traditional reaches of the built environment curriculum and can offer a range of study options in other fields.

Minors

Minors will allow you undertake studies in a companion discipline. They are designed to provide you with introductory to intermediate level knowlege and skills in areas complementary to your studies. You can choose a minor from other built environment disciplines. There are also minors designed to distinguish students in the employment marketplace with complementary 'non-discipline' skills and competencies that you can choose from a range of inter- and intra-faculty disciplines.

Pathways to Further Study

The (UD01) Bachelor of Urban Development (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates may be eligible for discipline relevant Masters and/or Doctoral level programs.

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2
- Year 3, Semester 1
- Year 3, Semester 2
- Year 4, Semester 1
- Year 4, Semester 2

Bachelor of Urban Development (Honours) (Urban and Regional Planning)

Code	Title
Year 1, Semester 1	
USB100	Understanding the Built Environment
UXB130	History of the Built Environment
UXB131	Imagine Planning and Design
UXB132	Urban Analysis
Year 1, Semester 2	
BSB113	Economics
LWS012	Urban Development Law
UXB133	Urban Studies
UXB134	Land Use Planning
Year 2, Semester 1	
UXB230	Site Planning
UXB231	Planning Processes
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 2, Semester 2	
UXB232	Negotiation and Conflict Resolution
UXB233	Planning Law
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 1	
USB300	Property Development
UXB330	Urban Design
2nd Major/Minor unit	
2nd Major/Minor unit	
Year 3, Semester 2	
UXB301	Work Integrated Learning Built Environment
SEB701 Work Integrated Learning is replaced by UXB301 from S2, 2017	
UXH331	Environmental Analysis and Planning
UXB332	Transport Planning
2nd Major/Minor unit	
Year 4, Semester 1	
UXH300	Research Methods Built Environment
UXH400-1	Research Project 1 - Part A
UXH430	Planning Theory and Ethics
UXH431	Urban Planning Practice
Year 4, Semester 2	
UXH400-2	Research Project 1 - Part B
UXH432	Community Planning
UXH433	Regional Planning
2nd Major/Minor unit	

Bachelor of Property Economics (Honours)

Handbook

Year	2017
QUT code	UD10
CRICOS	080488G
Duration (full-time)	1 year
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $31900 per year full-time (96 credit points)
Total credit points	96
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Course Coordinator	Dr Andrea Blake; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	

Domestic Entry requirements

Academic entry requirements

- A completed recognised bachelor degree in property economics or equivalent with a minimum grade point average (GPA) score of 4.5 (on QUT's 7-point scale), completed within the last five years; *and*
- A proposed research topic.

Research projects are subject to supervisor availability and resources available within the faculty to support the proposed research topic.

Research proposals must be submitted with your application. Applicants are asked to nominate a supervisor and topic when submitting a formal application. An application is likely to be more successful where a supervisor and topic are well matched.

International Entry requirements

Academic entry requirements

- A completed recognised bachelor degree in property economics or equivalent with a minimum grade point average (GPA) score of 4.5 (on QUT's 7-point scale), completed within the last five years; *and*
- A proposed research topic.

Research projects are subject to supervisor availability and resources available within the faculty to support the proposed research topic.

Research proposals must be submitted with your application. Applicants are asked to nominate a supervisor and topic when submitting a formal application. An application is likely to be more successful where a supervisor and topic are well matched.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Overview

A Property Economics (Honours) graduate will develop extensive research skills that will allow them to undertake expanded roles in the property sector in the areas of property market analysis, industry research and property trust and funds analysis.
The Honours program will allow you to select a current specific property development, valuation or financial and asset management problem or issue and develop the appropriate research skills and methods to address these issues.
The advanced leadership and teamwork skills, together with expanded knowledge gained in the Honours degree will also allow the graduate to participate in a wider range of property based careers in the private and government property valuation, finance and development sectors.

Course Design

Requirements for the completion of UD10 Bachelor of Economics (Honours) are as follows:

STUDY AREA A: 96 credit points (6 units) comprising One (1) Major from the following:

- Development & Valuation
- Finance & Asset Management

Each Major is comprised of the Core units Foundations of Research adn Reviewing the Field, and the choice of either the Expanded Research Strand or the Extended Coursework Strand.

Each strand comprises of coursework and a major research project supervised by QUT staff.

Career Outcomes

The additional study at the Honours level will provide additional preparation for careers in higher level career opportunities in:

• Property Development
• Property Funds Analyst
• Property Research
• Property Valuation
• Property Finance
• Asset Management

Professional Recognition

Australian Property Institute
The Valuers Registration Board of Queensland
The Royal Institution of Chartered Surveyors

Board of Valuers, Appraisers and Estate Agents, Malaysia

Pathways to Further Study

The QUT Bachelor of Science (Honours) is located at Level 8 of the Australian Qualifications Framework (AQF). Honours provides the key research pathway to postgraduate study. Completion of the BPropEc(Hons)(Dev&Val) and BPropEc(Hons)(Fin&Asset Mgt) will allow you to undertake additional research study in either a research Masters or PhD.

Domestic Course structure

You must complete 96 credit points (8 units) from one of the following study areas:

- development and valuation
- finance and asset management.

International Course structure

You must complete 96 credit points (8 units) from one of the following study areas:

- development and valuation
- finance and asset management.

Sample Structure

Semesters

- Semester 1
- Semester 2
- Property Economics Honours Unit Options (Expanded Research)

Code	Title
Semester 1	
SEB400	Foundations of Research
SEB403-1	Honours Research Project-1
SEB402	Project Proposal
Select 12cp (1 Unit) from Property Economics Honours Unit Options	
Semester 2	
SEB403-2	Honours Research Project-2
SEB403-3	Honours Research Project-3
SEB403-4	Honours Research Project-4
Select 12cp (1 Unit) from Property Economics Honours Unit Options	
Property Economics Honours Unit Options (Expanded Research)	
Select 12cp (1 unit) from:	
SEB410	Advanced Topic 1
SEB411	Advanced Topic 2
UXH430	Planning Theory and Ethics
UXH432	Community Planning
UXH433	Regional Planning

Semesters

- Semester 1
- Semester 2
- Property Economics Honours Unit Options (Expanded Research)

Code	Title
Semester 1	
SEB400	Foundations of Research
SEB403-1	Honours Research Project-1
SEB402	Project Proposal
Select 12cp (1 Unit) from Property Economics Honours Unit Options	
Semester 2	
SEB403-2	Honours Research Project-2
SEB403-3	Honours Research Project-3
SEB403-4	Honours Research Project-4
Select 12cp (1 Unit) from Property Economics Honours Unit Options	
Property Economics Honours Unit Options (Expanded Research)	
Select 24cp (2 units) from:	
SEB410	Advanced Topic 1
SEB411	Advanced Topic 2
UXH430	Planning Theory and Ethics
UXH432	Community Planning
UXH433	Regional Planning

Graduate Certificate in Communication for Information Technology

Handbook

Year	2017
QUT code	IN17
CRICOS	086328J
Duration (full-time international)	6 months
International fee (indicative)	2017: $13600 per course (48 credit points)
Total credit points	48
Course Coordinator	ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	

International Entry requirements

Academic entry requirements

A completed recognised bachelor degree in information technology.

Pathway Graduate Certificate to IN20 Master of Information Technology

Students must have a completed recognised bachelor degree in information technology.

This pathway consists of *IN17 Graduate Certificate in Information Technology* (1 semester) leading to IN20 Master of Information Technology (3 semester)

Pathway Graduate Certificate to IN21 Master of Information Technology

Students must have a completed recognised bachelor degree in information technology.

For IN21 majors: *Enterprise Systems*, *Networks and Security,* the pathway will be:

- IN17 Graduate Certificate in Information Technology (1 semester) leading to IN21 Master of Information Technology (2 semesters)

For IN21 majors: *Data Science*, *Business Process Management*, *Computer Science*, *User Experience* and *Information Management,* the pathway will be:

- IN17 Graduate Certificate in Information Technology (1 semester) leading to IN21 Master of Information Technology (3 semesters)

Students with bachelor degrees in disciplines other than information technology could consider the QC06 University certificate in Tertiary Prepartion for Postgraduate Studies or QUT English for Academic Purposes pathways.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	5.0
Writing	5.5
Reading	5.5
Listening	5.0
Overall	6.0

Successful completion of QUT's English for Academic Purposes (EAP)(Direct Stream) with 50% or better or QC32 English for Academic Purposes 2.

Course Design

The Graduate Certificate in Communication for Information Technology will provide you with core discipline studies and communication knowledge and skills.

The course structure consists of 48 credit points of units. There are two common core communications units (24cp) and two information technology unit options (24cp) from the following information technology areas: Computer Science/Data Science, Enterprise Systems, Networks, Security, or Business Process Management.

NB: If you intend to follow a major pathway into IN20/21 MIT you should select the recommended IT units for those majors on commencment of IN17.

Pathways to Further Study

The QUT Graduate Certificate in Communication for Information Technology is located at Level 8 of the Australian Qualifications Framework (AQF). Eligible graduates may articulate from the Graduate Certificate in Communication for Information Technology into the related IN20 Master of Information Technology/ IN21 Master of Information Technology - Graduate Entry course.

International Course structure

The course structure consists of 48 credit points of units. There are two common core communications units (24 credit points) and two information technology unit options (24 credit points) from the following information technology areas:

- computer science/data science
- enterprise systems
- networks
- security
- business process management.

NB: You should select the recommended IT units for your chosen major on commencement of IN17.

Sample Structure

Code	Title
Semester 1	

Graduate Certificate in Communication for Information Technology

Core Units (24cp):	
QCD111	Communication 1
QCD211	Communication 2
PLUS select 2 Units (24cp) from the following unit options: (The units are grouped by specialisation as offered in the Master of Information Technology. It is important you select the units that reflect the Major you wish to study in your Masters as these units will be credited towards your MIT). If you choose to not study a major (i.e. the No Major option), please select any 2 units from the list.	
NETWORKS	
IFN660	Programming Language Theory
IFN642	Applied Cryptography and Network Security
SECURITY	
IFN642	Applied Cryptography and Network Security
IFN660	Programming Language Theory
COMPUTER SCIENCE/DATA SCIENCE	
IFN645	Data Mining Technology and Applications
IFN660	Programming Language Theory
ENTERPRISE SYSTEMS	
IFN662	Enterprise Systems and Applications
IFN650	Business Process Analytics
BUSINESS PROCESS MANAGEMENT	
IFN515	Fundamentals of Business Process Management
IFN650	Business Process Analytics

Code	Title
Semester 2	
Core Units (24cp):	
QCD111	Communication 1
QCD211	Communication 2
PLUS select 2 Units (24cp) from the following unit options: (The units are grouped by specialisation as offered in the Master of Information Technology. It is important you select the units that reflects the Major you wish to study in your Masters as these units will be credited towards your MIT). If you choose to not study a major (i.e. the No Major option), please select any 2 units from the list.	
NETWORKS	
IFN641	Advanced Network Management
IFN643	Computer System Security
SECURITY	
IFN643	Computer System Security
IFN641	Advanced Network Management
COMPUTER SCIENCE	
IFN643	Computer System Security
ENTERPRISE SYSTEMS	
IFN663	Advanced Enterprise Architecture
IFN652	Enterprise Business Process Management
BUSINESS PROCESS MANAGEMENT	
IFN651	Lean Six Sigma
IFN652	Enterprise Business Process Management

Graduate Certificate in Business Process Management

Handbook

Year	2017
QUT code	IN25
Duration (part-time)	1 year
Campus	Gardens Point
Domestic fee (indicative)	2017: $10100 per year full-time (48 credit points)
International fee (indicative)	2017: $13900 per year full-time (48 credit points)
Total credit points	48
Credit points part-time sem.	24
Start months	February
Int. Start Months	February
Course Coordinator	Associate Professor Moe Wynn; email: sef.enquiry@qut.edu.au; ph: +61 7 3138 8822
Discipline Coordinator	

Domestic Entry requirements

Academic entry requirements

- A completed recognised bachelor degree in the field of information technology or business; *or*
- A completed recognised bachelor degree (or higher award) in any discipline *plus* five years industry experience in business, information technology or business process management.

International Entry requirements

Academic entry requirements

- A completed recognised bachelor degree in the field of information technology or business; *or*
- A completed recognised bachelor degree (or higher award) in any discipline *plus* five years industry experience in business, information technology or business process management.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Domestic Course structure

To be eligible for the Graduate Certificate in Business Process Management:

- students are required to complete 48 credit points of units.
- students must complete two core BPM units (24 credit points)
- students must take two units (24 credit points) of electives from the list of approved elective units provided.

International Course structure

To be eligible for the Graduate Certificate in Business Process Management:

- students are required to complete 48 credit points of units.
- students must complete two core BPM units (24 credit points)
- students must take two units (24 credit points) of electives from the list of approved elective units provided.

Sample Structure

Code	Title
Year 1, Semester 1	
IFN515	Fundamentals of Business Process Management
Select one unit from:	
IFN651	Lean Six Sigma
MGN505	Consulting and Change Management
Year 1, Semester 2	
IFN652	Enterprise Business Process Management
Select one unit from:	
IFN650	Business Process Analytics
IFN695	Minor Project

Graduate Certificate in Project Management

Handbook

Year	2017
QUT code	PM15
CRICOS	084926C
Duration (full-time)	6 months
Campus	Gardens Point
Domestic fee (indicative)	2017: $10200 per course (48 credit points)
International fee (indicative)	2017: $15300 per course (48 credit points)
Total credit points	48
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Course Coordinator	Dr Madhav Nepal; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	

Domestic Entry requirements

Academic entry requirements

A completed recognised bachelor honours degree (or higher) in any discipline; or

A completed recognised bachelor degree in:

- engineering or built environment disciplines; *or*
- any discipline with at least 6 months (full-time or equivalent) professional project management work experience; *or*
- any discipline plus successful completion of two QUT Open CPE modules in Project Management; *or*

A completed recognised associate degree or advanced diploma in project management with at least:

- 6 years (full-time or equivalent) senior project management work experience; *or*
- 10 years (full-time or equivalent) project management work experience.

International Entry requirements

Academic entry requirements

A completed recognised bachelor degree (or higher) in:

- engineering or built environment disciplines; *or*

A completed recognised bachelor degree in any discipline; *and*

- at least six months (full-time or equivalent) professional project management work experience in any discipline.

Students applying on the basis of work experience must submit a detailed CV, position details and employment statements; *or*

A completed recognised graduate certificate, graduate diploma, masters or Australian honours in any discipline.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Overview

The Graduate Certificate in Project Management delivers fundamental Project Management skills to those wishing to advance their knowledge in the discipline. It is designed for, both, individuals seeking to work in project management areas and for those already working in positions requiring project management.

With this course you will gain a depth of specialised knowledge and skills to manage projects across multiple industry sectors.

Designed to offer flexible study choices, the course is available fully on-line or face to face on campus. See the Study Choices information below for more detail on how you can study this course.

Course Design

The QUT Graduate Certificate in Project Management degree is designed around a set of core project management topics that underpin the knowledge required for practice and/or further learning.

The course will provide you with advanced and specialised discipline knowledge and skills to apply appropriate solutions to project management problems. You will learn how to communicate effectively within various social, cultural and professional contexts across and within stakeholder and discipline groups.

The course structure consists of 48 credit points (4 units) of core units that can be completed in one semester of study.

Two of the units should be completed in this order:

PMN501 Project Management Essentials 1, in the first half of the semester, followed by PMN502 Project Management Essentials 2 in the second half of the semester.

Study Choices

You can study the Graduate Certificate in Project Management internally on campus at Gardens Point or externally Online. Depending on your location, you may choose to study some, or all, units Online or you may choose to attend in class at Gardens Point. When you self-enrol in a unit you must select from the list of attendance modes available that

matches how you wish to study that unit. If you select the online study mode for a unit, your studies will all take place electronically, off campus. If you select to study a unit internally, you will be required to attend scheduled classes on campus.

Studying On Campus (Internally)
There are different ways you can study some project management units internally. You will be able to identify which type of internal study is offered when you self-enrol in a unit. If the unit is described as 'Internal' this typically indicates a standard delivery mode where classes will be scheduled each week for the duration of the specified teaching period. If a unit is described as Internal Block Mode, this indicates that it will be delivered in an intensive learning mode, such as whole day or weekend sessions or seminars. Please ensure you check your session dates.

Special Course Requirements

Students wishing to undertake online studies will require access to the necessary technology to facilitate this mode of study.

Pathways to Further Study

The QUT Graduate Certificate in Project Management is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates will be eligible for entry into the Master of Project Management with a reduced course duration of 1 year.

Professional Membership

Endorsed by the Australian Institute of Project Management (AIPM).

Domestic Course structure

The QUT Graduate Certificate in Project Management degree is designed around a set of core project management topics that underpin the knowledge required for practice and/or further learning.

The units will provide you with advanced and specialised discipline knowledge and skills to apply appropriate solutions to project management problems. You will learn how to communicate effectively within various social, cultural and professional contexts across and within stakeholder and discipline groups.

The course structure consists of 48 credit points (4 units) of core units that can be completed in one semester of study.

Two of the units should be completed in this order:

PMN501 Project Management Essentials 1, in the first half of the semester, followed by PMN502 Project Management Essentials 2 in the second half of the semester.

Special course requirements

Designed to offer flexible study choices, the units will be available fully on-line or face to face on campus. You may also choose blend these options. Students wishing to undertake online studies will require access to the necessary technology to facilitate this mode of study.

Pathways to further study

The QUT Graduate Certificate in Project Management is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates will be eligible for entry into the Master of Project Management with a reduced course duration of one year.

International Course structure

The QUT Graduate Certificate in Project Management degree is designed around a set of core project management topics that underpin the knowledge required for practice and/or further learning.

The units will provide you with advanced and specialised discipline knowledge and skills to apply appropriate solutions to project management problems. You will learn how to communicate effectively within various social, cultural and professional contexts across and within stakeholder and discipline groups.

The course structure consists of 48 credit points (4 units) of core units that can be completed in one semester of study.

Two of the units should be completed in this order:

PMN501 Project Management Essentials 1, in the first half of the semester, followed by PMN502 Project Management Essentials 2 in the second half of the semester.

Special Course Requirements

Designed to offer flexible study choices, the units will be available fully on-line or face to face on campus. You may also choose blend these options. Students wishing to undertake online studies will require access to the necessary technology to facilitate this mode of study.

Pathways to further study

The QUT Graduate Certificate in Project Management is located at Level 8 of the Australian Qualifications Framework (AQF). Graduates will be eligible for entry into the Master of Project Management with a reduced course duration of 1 year.

Sample Structure

Code	Title
Full-time course structure	
PMN501	Project Management Essentials 1
PMN502	Project Management Essentials 2
Core unit PMN501 is assumed knowledge for PMN502, and should be taken in the first half of the semester of study before attempting PMN502 in the second half of the semester.	
PMN503	Systems in Project Management
PMN504	People and Projects

Graduate Diploma in Applied Science (Medical Physics)

Handbook

Year	2017
QUT code	PH71
CRICOS	020315D
Duration (full-time)	1 year
Duration (part-time)	2 years
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $28100 per year full-time (96 credit points)
Total credit points	96
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July
Int. Start Months	February, July
Discipline Coordinator	

Domestic Entry requirements

Academic entry requirements

A completed recognised bachelor degree in physics (or equivalent qualification) or other evidence of qualifications that satisfactorily demonstrate you possess the capacity to pursue the course of study.

International Entry requirements

Academic entry requirements

A completed recognised bachelor degree (or higher award) in physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Career Outcomes

Graduates can seek employment in hospitals, health departments, tertiary institutions and medical instrumentation companies. Depending on the field of employment, graduates may be known as a medical physicist, health physicist or bio-engineer.

Professional medical/health physicists:
- apply electronic tools and medical software, ultrasonics, radiation and computers to clinical and environmental problems
- monitor the environment to maintain acceptable standards in the workplace and the community
- apply fundamental physical research in development programs
- are responsible for calibration, care and maintenance of instruments and apparatus.

Course Design

Stage 1— Graduate Diploma (PH71) comprises assessed coursework such as advanced lectures, seminars, reading units or independent study. Full-time students will need an average of 14 hours a week of formal contact (seven hours for parttime students). Students can graduate with a Graduate Diploma in Medical Physics after satisfactory completion of Stage 1.

Stage 2— Master of Applied Science (PH80) students undertake a program of supervised research and investigation that can be completed at QUT or in a suitable external institution.

Professional Recognition

The course is accredited by the Australasian College of Physical Sciences and Engineers in Medicine.

Further Information

Science and Engineering Faculty - Phone +61 7 3138 8822, Email: sef.enquiry@qut.edu.au

Domestic Course structure

Stage 1—Graduate Diploma (PH71) comprises assessed coursework such as advanced lectures, seminars, reading units or independent study. Full-time students will need an average of 14 hours a week of formal contact (seven hours for part-time students). Students can graduate with a Graduate Diploma in Medical Physics after satisfactory completion of Stage 1.

Stage 2—Master of Applied Science (PH80) students undertake a program of supervised research and investigation that can be completed at QUT or in a suitable external institution.

International Course structure

Stage 1—Graduate Diploma (PH71) comprises assessed coursework such as advanced lectures, seminars, reading units or independent study. Full-time students will need an average of 14 hours a week of formal contact (seven hours for parttime students). Students can graduate with a Graduate Diploma in Medical Physics after satisfactory completion of Stage 1.

Stage 2—Master of Applied Science (PH80) students undertake a program of supervised research and investigation that can be completed at QUT or in a suitable external institution.

Sample Structure

Code	Title
Year 1, Semester 1 (February to June)	
LSN104	Advancing Anatomy and Physiology
PCN113	Radiation Physics
ENN515	Total Quality

	Management
PCN211	Physics of Medical Imaging
Year 1, Semester 2 (July to October)	
PCN112	Medical Imaging Science
PCN212	Radiotherapy
PCN214	Health and Occupational Physics
PCN218	Research Methodology and Professional Studies

Master of Engineering Management

Handbook

Year	2017
QUT code	BN87
CRICOS	006368G
Duration (full-time)	1 year
Duration (part-time)	2 years
Campus	Gardens Point
Domestic fee (indicative)	2017: $20500 per year full-time (96 credit points)
International fee (indicative)	2017: $29400 per year full-time (96 credit points)
Total credit points	96
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Course Coordinator	Dr Azharul Karim; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Science and Engineering Faculty 3138 8822 sef.enquiry@qut.edu.au

Domestic Entry requirements

Academic entry requirements

A completed recognised four-year full-time bachelor degree in a relevant engineering discipline with a minimum grade point average (GPA) score of 4.0 on QUT's 7-point scale.

International Entry requirements

Academic entry requirements

- A completed recognised four-year full-time bachelor degree in a relevant engineering discipline with a minimum grade point average (GPA) score of 4.0 on QUT's 7-point scale; *or*
- A completed recognised three-year full-time bachelor degree in a relevant engineering discipline with a minimum grade point average (GPA) score of 4.0 on QUT's 7-point scale and two years full-time professional engineering work experience.*

*Students applying on the basis of work experience must submit a current curriculum vitae and employer statements detailing roles and responsibilities.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Structure

To graduate with a Master of Engineering Management you are required to complete 96 credit points (8 units) consisting of:

48 credit points of core engineering management postgraduate units, including a 12 credit point advanced research skills unit and 24 credit points of research based project units

and;

48 credit points of engineering management discipline units.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Early Exit Options

Please note: There is no early exit option available for students that enter the BN87 progam from 2015 onwards.

Pathways to Further Study

The Master of Engineering Management is located at level 9 of the Australian Qualifications Framework. Graduates that meet the GPA requirements, may be eligible to apply for discipline relevant Doctoral level studies.

International Combined Masters Packages

Students admitted to a combined masters pathway (BN87 + EN50 or BN87 + PM20) may progress to their second degree on completion of the first, and are referred to the combined package study plan for their chosen combination, available on the course websites. Separate awards are granted for each degree completed.

Domestic Course structure

Course Structure

To graduate with a Master of Engineering Management you are required to complete 96 credit points (8 units) consisting of:

- 48 credit points of core engineering management postgraduate units, including a 12 credit point advanced research skills unit and 24 credit points of research based project units
- 48 credit points of engineering management discipline units.

Early Exit Options

Please note: There is no early exit option available for students that enter the BN87 program from 2015 onwards.

International Course structure

Course Structure

To graduate with a Master of Engineering Management you are required to complete 96 credit points (8 units) consisting of:

- 48 credit points of core engineering management postgraduate units, including a 12 credit point advanced research skills unit and 24 credit points of research based project

units
- 48 credit points of engineering management discipline units

Early Exit Options

Please note: There is no early exit option available for students that enter the BN87 program from 2015 onwards.

Combined masters packages for international students

If you are admitted to either of:

- Master of Engineering Management and Master of Engineering package
- Master of Engineering Management and Master of Project Management package

you can progress to the second degree on completion of the first.

You will receive an award for each degree completed.

Refer to the combined package course structure of the relevant second year degree for unit details.

International Student Entry

You must maintain an enrolment program that will allow you to complete you course within the specified timeframe of your electronic Confirmation of Enrolment (eCoE)

Sample Structure

Code	Title
Year 1, Semester 1	
ENN510	Engineering Knowledge Management
ENN515	Total Quality Management
ENN541	Research Methods for Engineers
ENN591-1	Project 1
[ENN590-1 replaced by ENN591-1 in 2016]	
Year 1, Semester 2	
BEN610	Project Management Principles
ENN591-2	Project 2
[ENN590-2 replaced by ENN591-2 in 2016]	
ENN530	Asset and Facility Management
ENN570	Enterprise Resource Planning

Combined Masters Package: Master of Engineering Management (BN87) plus Master of Engineering (EN50)

If you are admitted to this pathway, once you successfully complete your Master of Engineering Management (BN87) you may progress to the Master of Engineering (EN50). **You will receive 24 credit points (2 units) of advanced standing in EN50** if you have successfully completed *ENN541 Research Methods for Engineers;* and *BEN610 Project Management Principles*. Please follow the study plan for your combined package, and refer to the course
site for further information regarding your second degree.

Combined Masters Package: Master of Engineering Management (BN87) plus Master of Project Management (PM20)

If you are admitted to this pathway, once you successfully complete your Master of Engineering Management (BN87) you may progress to the Master of Project Management (PM20). **You will receive 48 credit points (1 semester) of advanced standing in PM20** if you have successfully completed the following units in BN87: *ENN541 Research Methods for Engineers; ENN590-1 Project 1; ENN590-2 Project 2; ENN510 Engineering Knowledge Management; ENN530 Asset and Facility Management; ENN570 Enterprise Resource Planning; and BEN610 Project Management Principles.* Please follow the study plan for your combined package, and refer to the course site for further information regarding your second degree.

Semesters

- BN87 Course Structure - Feb Entry
- Master of Engineering (EN50) Combined Masters Study Plan
- Master of Project Management (PM20) Combined Masters Study Plan

Code	Title
BN87 Course Structure - Feb Entry	
Year 1, Semester 1	
ENN510	Engineering Knowledge Management
ENN515	Total Quality Management
ENN541	Research Methods for Engineers
ENN590-1	Project 1
Year 1, Semester 2	
BEN610	Project Management Principles
ENN530	Asset and Facility Management
ENN570	Enterprise Resource Planning
ENN590-2	Project 2
Year 2, proceed to either EN50 or PM20 course structure below.	
Master of Engineering (EN50) Combined Masters Study Plan	
MECHANICAL ENGINEERING MAJOR	
Year 2, Semester 1	
ENN531	Advanced Materials and Engineering Applications
ENN591-1	Project 1
ENN533	Advanced Engineering Design and Maintenance
Year 2, Semester 2	
ENN591-2	Project 2
ENN542	Statistical and Optimisation Methods for Engineers
ENN552	Solar Thermal Systems - Heat and Power
OR	
ENN553	Energy Optimised Buildings and Communities
[ENN552 offered in EVEN years. ENN553 offered in ODD years.]	
NETWORKING AND COMMUNICATIONS MAJOR	
Year 2, Semester 1	
ENN522	Advanced Communication Systems
ENN523	Advanced Network Engineering
ENN591-1	Project 1
Year 2, Semester 2	
ENN524	Mobile Network Engineering
ENN542	Statistical and Optimisation Methods for Engineers
ENN591-2	Project 2
GENERAL (NO MAJOR)	
Year 2, Semester 1	
ENN591-1	Project 1
Select Optional unit from EN50 elective pool or EN50 discipline unit	
Select unit from EN50 discipline units	
Year 2, Semester 2	
ENN542	Statistical and Optimisation Methods for Engineers
ENN591-2	Project 2

Master of Engineering Management

Select unit from EN50 discipline units	
Master of Project Management (PM20) Combined Masters Study Plan	
Year 2, Semester 1	
PMN503	Systems in Project Management
PMN601	Projects and Performance
PMN604	Strategy and Projects
PMN602	Organisations and Projects
Year 2, Semester 2	
PMN605	Strategic Project Procurement
PMN606	Project Investigation 2
PMN607	Strategic Risk Management
PMN608	Managing the Project

Master of Project Management

Handbook

Year	2017
QUT code	BN89
CRICOS	060815G
Duration (full-time)	1 year
Duration (part-time)	2 years
Campus	Gardens Point
Total credit points	96
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Course Coordinator	Professor Jay Yang; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Science and Engineering Faculty 3138 8822 sef.enquiry@qut.edu.au

Domestic Entry requirements

A completed recognised four-year full-time Bachelor Degree in a relevant engineering discipline with a minimum grade point average of 4.0 (on a 7-point scale) in that study, or a qualification deemed equivalent by Faculty.

International Entry requirements

A completed recognised four-year full-time Bachelor Degree in a relevant engineering discipline with a minimum grade point average of 4.0 (on a 7-point scale) in that study, or a qualification deemed equivalent by Faculty.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.0

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Advanced Standing

Students completing two Masters courses in the following Master Courses - BN87, BN88, BN89, UD50 - notwithstanding advanced standing applied for common units, will be required to complete a minimum of 60cp of units to be determined in consultation with the nominated Course Leader, to achieve the second Masters.

Master of Engineering (Railway Infrastructure)

Handbook

Year	2017
QUT code	BX30
CRICOS	External Study Only
Duration (part-time)	4 years
Total credit points	96
Start months	February, July
Int. Start Months	February, July
Course Coordinator	Mr Mike Garrett; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Science and Engineering Faculty 3138 8822 sef.enquiry@qut.edu.au

Domestic Entry requirements

Academic entry requirement

A completed recognised four-year full-time bachelor degree in a civil engineering related field or a three-year full-time diploma and three or more years of relevant professional experience in the railway industry with a minimum grade point average (GPA) of 4.0 (on QUT's 7 point scale).

Note

Entry to this course is open to employees of companies conducting business in the railway industry and whose employer is prepared to sponsor or support their study of this course. That is, applicants must be working in the railway industry and have the support of their employer.

International Entry requirements

Academic entry requirement

A completed recognised four-year full-time bachelor degree in a civil engineering related field or a three-year full-time diploma and three or more years of relevant professional experience in the railway industry with a minimum grade point average (GPA) of 4.0 (on QUT's 7 point scale).

Note

Entry to this course is open to employees of companies conducting business in the railway industry and whose employer is prepared to sponsor or support their study of this course. That is, applicants must be working in the railway industry and have the support of their employer.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.0

Why study Railway Infrastructure

- study part-time by flexible online learning – wherever you are in the world
- developed exclusively for engineers employed in the rail industry
- designed by Australian rail industry and academic personnel and fully endorsed by Rail Innovation Australia
- comprehensive best-practice learning material from one of the world's leading heavy haul nations
- study individual units through Continuing Professional Education .

Overview

Developed as a cooperative project between the rail industry and the Queensland University of Technology, this course captures the knowledge and expertise of civil infrastructure engineers working in the Australian rail industry. It is provided as a professional development program for people working in the rail industry. Graduates will gain skills and knowledge in a range of areas related to the design, construction, maintenance and management of railway infrastructure. The degree offers both theoretical understanding and practical applications of advanced professional practice.

Course Structure

To graduate with a Master of Engineering (Railway Infrastructure) you are required to complete 96 credit points (8 units) consisting of:
96 credit points of core engineering railway infrastructure discipline units, including a 12 credit point advanced research skills unit and a 12 credit point research-based project unit.

Study Mode

The course is delivered via flexible online learning suitable for mature age students studying part-time and working full-time .There are no on-campus classes and you can complete the course from any location world-wide. You will study using a combination of online, CD and print material and submit assignments for assessment.

Further Information

Please visit here to find out how to apply and to register for the newsletter.

Early Exit Option

An early exit with BX31 - Graduate Certificate in Engineering (Railway Infrastructure) is available.

Master of Engineering

Handbook

Year	2017
QUT code	EN50
CRICOS	060811A
Duration (full-time)	1 year
Duration (part-time domestic)	2 years
Campus	Gardens Point
Domestic fee (indicative)	2017: $21100 per year full-time (96 credit points)
International fee (indicative)	2017: $29300 per year full-time (96 credit points)
Start months	February, July
Int. Start Months	February, July
Course Coordinator	Dr Dhammika Jayalath; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Dr Jacob Coetzee (Networking & Communications), Dr Wijitha Senadeera (Mechanical) 3138 8822 sef.enquiry@qut.edu.au

Domestic Entry requirements

Academic entry requirements

A completed recognised four year full-time bachelor degree in an electrical or mechanical engineering or a related engineering area with a minimum grade point average (GPA) of 4.00 (on QUT's 7-point scale).

The following areas would meet the 'related engineering area' requirement:

- Aerospace
- Aircraft Maintenance
- Aviation, Automotive
- Biomedical
- Chemical and Materials
- Chemical and Metallurgical
- Communication
- Computer
- Electrical
- Electronic
- Electronic and Biomedical
- Energy
- Industrial
- Information and Communications Technology
- Instrumentation and Control
- Manufacturing
- Marine
- Maritime
- Materials
- Mechanical
- Mechatronic
- Medical
- Microelectronic
- Mining
- Naval Architecture
- Ocean
- Photonics
- Photovoltaic and Solar Energy
- Power
- Process
- Product Design
- Renewable Energy
- Robotic Software
- Telecommunications
- Tool making
- Wireless

International Entry requirements

Academic entry requirements

A completed recognised four year full-time bachelor degree in an electrical or mechanical engineering or a related engineering area with a minimum grade point average (GPA) of 4.00 (on QUT's 7-point scale); *or*

A completed recognised three year full-time bachelor degree in an electrical or mechanical engineering area or a related engineering area with a minimum grade point average (GPA) score of 4.00 (on QUT's 7-point scale) *and* two years full time professional work experience in electrical or mechanical engineering.*

*Students applying on the basis of work experience must submit a current curriculum vitae and employer statements detailing roles and responsibilities.

The following areas would meet the 'related engineering area' requirement:

- Aerospace
- Aircraft Maintenance
- Aviation, Automotive
- Biomedical
- Chemical and Materials
- Chemical and Metallurgical
- Communication
- Computer
- Electrical
- Electronic
- Electronic and Biomedical
- Energy
- Industrial
- Information and Communications Technology
- Instrumentation and Control
- Manufacturing
- Marine
- Maritime
- Materials
- Mechanical
- Mechatronic
- Medical
- Microelectronic
- Mining
- Naval Architecture
- Ocean
- Photonics
- Photovoltaic and Solar Energy
- Power
- Process
- Product Design
- Renewable Energy
- Robotic Software
- Telecommunications
- Tool making
- Wireless

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Structure

To graduate with a Master of Engineering students are required to complete 96 credit points (8 units) of course units.

a) 2 Core units + 2 Project units (of a

specialisation area) + at least 3 electives with the same specialisation tag to claim Master of Engineering (Specialisation*); or

b) 2 Core units + 2 Project units + any 4 electives to claim Master of Engineering, i.e. no specialisation (Students fulfilling the specialisation requirement may choose not to have a specialisation in the award title)

*Specialisation options include:
- Mechanical Engineering
- Networking & Communications

Assumed Knowledge

It is assumed upon entry to the Masters program that students are proficient in prerequisite knowledge relevant to the intended Study Area A:

• **Mechanical Engineering:** students are assumed to be proficient in the general areas of mechanical engineering, metallurgy, materials or relevant disciplines.
• **Networking & Communications:** students are assumed to be proficient in the general area of electrical, electronics, communications or relevant disciplines.

International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

Pathways to Further Study

The Masters of Engineering is located at level 9 of the Australian Qualifications Framework. Graduates that meet the GPA requirements, may be eligible to apply for discipline relevant Doctoral level studies.

International Combined Masters Packages

Students admitted to a combined masters pathway (EN50 + PM20) may progress to their second degree on completion of the first, and are referred to the combined package study plan for their chosen combination, available on the course websites. Separate awards are granted for each degree completed.

Professional Recognition

The Master of Engineering is a post-professional qualification and, as such, is beyond the usual qualifications required for membership of professional organisations.

Early Exit Options

Please note: There is no early exit option available for students that enter the EN50 progam from 2015 onwards.

International Course structure

Combined masters packages for international students

If you are admitted to either of:

- Master of Engineering and Master of Project Management package
- Master of Engineering Management and Master of Engineering package

you can progress to the second degree on completion of the first.

You will receive an award for each degree completed.

Refer to the combined package course structure of the relevant second year degree for unit details.

Sample Structure

If you are admitted to this pathway, once you successfully complete your Master of Engineering (EN50) you may progress to the Master of Project Management (PM20). **You will receive 48 credit points (1 semester) of advanced standing in PM20** if you have successfully completed the following units in EN50: *ENN541 Research Methods for Engineers; ENN590-1 Project 1; ENN590-2 Project 2; ENN541 Research Methods for Engineers; ENN542 Statistical and Optimisation Methods for Engineers; and BEN610 Project Management Principles.* Please follow the study plan for your combined package, and refer to the course site for further information regarding your second degree.

Code	Title
EN50 Course Structure - Feb Entry	
MECHANICAL ENGINEERING MAJOR	
Year 1, Semester 1	
ENN531	Advanced Materials and Engineering Applications
ENN533	Advanced Engineering Design and Maintenance
ENN541	Research Methods for Engineers
ENN590-1	Project 1
Year 1, Semester 2	
BEN610	Project Management Principles
(BEN610 must be selected from the Postgraduate Engineering Unit Options list.)	
ENN542	Statistical and Optimisation Methods for Engineers
ENN552	Solar Thermal Systems - Heat and Power
OR	
ENN553	Energy Optimised Buildings and Communities
[ENN552 offered in EVEN years. ENN553 offered in ODD years.]	
ENN590-2	Project 2
NETWORKING AND COMMUNICATION MAJOR	
Year 1, Semester 1	
ENN522	Advanced Communication Systems
ENN523	Advanced Network Engineering
ENN541	Research Methods for Engineers
ENN590-1	Project 1
Year 1, Semester 2	
BEN610	Project Management Principles
(BEN610 must be selected from the Postgraduate Engineering Unit Options list.)	
ENN524	Mobile Network Engineering
ENN542	Statistical and Optimisation Methods for Engineers
ENN590-2	Project 2
GENERAL (NO MAJOR)	
Year 1, Semester 1	
BEN610	Project Management Principles
(BEN610 must be selected from the Postgraduate Engineering and Elective Unit Options list.)	
ENN541	Research Methods for Engineers
ENN590-1	Project 1
Postgraduate Engineering Unit Option	
Year 1, Semester 2	
ENN542	Statistical and Optimisation Methods for Engineers
ENN590-2	Project 2
Postgraduate Engineering Unit Option	
Postgraduate Engineering Unit Option	
Year 2, proceed to PM20 course structure below.	
Master of Project Management (PM20) Combined Masters Study Plan	

Master of Engineering

Year 2, Semester 1	
PMN503	Systems in Project Management
PMN601	Projects and Performance
PMN602	Organisations and Projects
PMN604	Strategy and Projects
Year 2, Semester 2	
PMN605	Strategic Project Procurement
PMN606	Project Investigation 2
PMN607	Strategic Risk Management
PMN608	Managing the Project

In this list

CORE UNITS	
Code	Title
ENN541	Research Methods for Engineers
ENN542	Statistical and Optimisation Methods for Engineers
ENN590-1	Project 1
ENN590-2	Project 2

OPTIONAL UNITS	
Code	Title
- Select 48cp of units offered in EN50	
- Students who successfully complete at least three units within one study area and project with a topic in the same study area will be eligible to graduate with that study area included in the award title.	
- Students who complete four Optional Units from across various study areas (including selections from the Elective Pool - no more than 2 units from this set) will be eligible to graduate with no named study area included in the award title.	

Mechanical Engineering Major	
Code	Title
ENN531	Advanced Materials and Engineering Applications
ENN533	Advanced Engineering Design and Maintenance
ENN552	Solar Thermal Systems - Heat and Power
OR	
ENN553	Energy Optimised Buildings and Communities
[ENN552 offered in EVEN years. ENN553 offered in ODD years.]	
In addition, select one unit from the Optional Units offered in EN50	

Networking and Communications Major	
Code	Title
ENN522	Advanced Communication Systems
ENN523	Advanced Network Engineering
ENN524	Mobile Network Engineering
In addition, select one unit from the Optional Units offered in EN50	

Elective Pool	
Code	Title
BEN610	Project Management Principles
BEN710	Sustainable Practice in Built Environment and Engineering
PMN501	Project Management Essentials 1
IFN515	Fundamentals of Business Process Management
IFN507	Network Systems
MGN423	Contemporary Strategic Analysis

Master of Information Technology

Handbook

Year	2017
QUT code	IN20
CRICOS	083059E
Duration (full-time)	2 years
Duration (part-time domestic)	4 years
Campus	Gardens Point
Domestic fee (indicative)	2017: $19400 per year full-time (96 credit points)
International fee (indicative)	2017: $27500 per year full-time (96 credit points)
Total credit points	192
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July
Int. Start Months	February, July
Course Coordinator	Dr Hasmukh Morarji; Tel: 07 3138 8822; Email: sef.enquiry@qut.edu.au
Discipline Coordinator	

Domestic Entry requirements

Academic entry requirements

A completed recognised bachelor degree in any discipline with a minimum grade point average (GPA) score of 4.0 (on QUT's 7 point scale).

International Entry requirements

Academic entry requirements

A completed recognised bachelor degree in *any discipline* with a minimum grade point average (GPA) score of 4.0 (on QUT's 7 point scale).

Applicants with a completed recognised *bachelor degree in information technology* with a minimum grade point average (GPA) score of 4.0 (on QUT's 7 point scale) may be eligible for entry into IN21 Master of Information Technology (Graduate Entry).

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

If you have an IELTS score of 6 (with Reading and Writing no less than 5.5) and (Listening and Speaking no less than 5)(or accepted equivalent)you may be considered for the Graduate Certificate in Communication for Information Technology pathway.

Course Overview

Graduates of the Master of IT degree will have the specialist knowledge and skills required for senior IT-related professional positions (both technical and managerial). The range of majors offered within the degree opens opportunities for students across the IT sector.

Students who graduate from this degree will have the ability to demonstrate advanced knowledge, based on research practices, in at least one IT discipline. They will undertake a significant research-based project that allows them to constructively apply the analytical skills they develop within an IT problem domain. The course will provide students with the ability to formulate best practice IT strategies and solutions and during this process create new IT discipline knowledge.

The degree aims to prepare students for work in a specialist IT area through a program of study that balances theoretical content, project-based experiences and industry-oriented perspectives.

Core Units

Students must complete core units in Research Based Practice, Project Management and a major Project or 2 small Projects on the approval of their Course Coordinator.

Majors

Students may select a major of 48 credit points from the following disciplines;

*** Data Science**
The data science major provides you with the knowledge and skills to extract information from large, complex and disparate data sets, using leading edge algorithms and tools.

*** Enterprise Systems**
Enterprise systems are engineered information systems that consist of applications and associated information, forming the fundamental structure of organisational processes in most large organisations. Enterprise systems provide comprehensive administrative systems and help to automate and streamline business processes.

*** Security**
The Security major provides you with the skills and knowledge appropriate for a information security professional.You will develop skills in risk management security policies and be aware of the technocal security mechanisms and issues.

*** Computer Science**
The computer science major extends your understanding of computer programming beyond being a mere user of programming language to an appreciation of their design and implementation.

*** Business Process Management**
The Business Process Management Major will provide graduates with complementary skills and knowledge to create and align information systems to effectively support business and enable business strategy.

*** Networks**

The Networks major provides you with the practical skills and theoretical knowledge required by a network administrator. You will gain experience with designing, implementing and maintaining network systems for a wide range of organisations.

*** Human Computer Interaction**
The HCI major develops the advanced knowledge & skills in human-centred design activities involving emerging technologies in order to create new forms of human-computer interaction.

*** Information Management**
The Information Management major provides you with the skills and knowledge to find employment in the information management industry. You will gain awareness of the activities in which information management professionals are engaged, in various organisational contexts.

*** No Major**
Students may select any 4 Advanced level units

Masters Strand Options

Students must complete 72 credit points from the Transition/Advanced Unit Options

Course Completion Rules

Students should meet the following requirements before they are able to complete the Masters program:

For students with an undergraduate degree in an IT-related field wishing to complete the 2 year MIT:
• Students are required to complete 192 credit points of units.
• Students are required to complete the specified core units.
• Students wishing to specialise must complete the specific unit requirements for a major.
• Students wishing to complete their postgraduate studies without a single area of specialisation must satisfy the unit requirements for graduation with no major.
• Students may be allowed to take up to 72 credit points of electives from the list of approved elective units provided.

Entry Requirements

A completed recognised Level 7 Bachelor Degree in any discipline with a minimum GPA of 4 (on a 7 point scale).

IELTS overall band score of 6.5 with no sub-band below 6.0, or equivalent.

Students who have completed a recognised Level 7 Bachelor Degree in the field of Information Technology and are eligible to enter IN21 (graduate entry) MUST indicate 2 year entry option at point of application.

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2

Code	Title
Year 1, Semester 1	
If you are an IT discipline graduate, please see your Course Coordinator for additional options	
IFN500	Design Thinking for IT
IFN501	Programming Fundamentals
IFN700	Project Management
Transition Option Unit 1 (Select pre-major unit here if offered)	
Year 1, Semester 2	
IFN502	IT Innovation and Disruption
IFN503	Fundamentals of Computer Systems
IFN600	Understanding Research
Transition Option Unit 2 (Select pre-major unit here if offered)	
Year 2, Semester 1	
IFN701	Project 1
Advanced Master Unit Option List/Major Core 2	
Advanced Master Unit Option List/Major Core 2	
Year 2, Semester 2	
IFN702	Project 2
Advanced Master Unit Option List (if undertaking 'No Major' option) OR / Major Option 1	
Advanced Master Unit Option List (if undertaking 'No Major' option) OR / Major Option 2	

Master of Information Technology - Graduate Entry

Handbook

Year	2017
QUT code	IN21
CRICOS	083059E
Duration (full-time)	1.5 years
Duration (part-time domestic)	3 years
Campus	Gardens Point
Domestic fee (indicative)	2017: $19400 per year full-time (96 credit points)
International fee (indicative)	2017: $27500 per year full-time (96 credit points)
Total credit points	144
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July
Int. Start Months	February, July
Course Coordinator	Dr Hasmukh Morarji; Tel: 07 3138 8822; Email: sef.enquiry@qut.edu.au
Discipline Coordinator	

Domestic Entry requirements

Academic entry requirements

A completed recognised bachelor degree in information technology with a minimum grade point average (GPA) score of 4.0 (on QUT's 7 point scale).

International Entry requirements

Academic entry requirements

A completed recognised bachelor degree in information technology with a minimum grade point average (GPA) score of 4.0 (on QUT's 7 point scale).

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Entry Requirements

A completed recognised Bachelor Degree in the discipline of Information Technology with a minimum GPA of 4 (on a 7 point scale).

IELTS overall band score of 6.5 with no sub-band below 6.0, or equivalent.

Course Overview

Graduates of the Master of IT degree will have the specialist knowledge and skills required for senior IT-related professional positions (both technical and managerial). The range of majors offered within the degree opens opportunities for students across the IT sector.

Students who graduate from this degree will have the ability to demonstrate advanced knowledge, based on research practices, in at least one IT discipline. They will undertake a significant research-based project that allows them to constructively apply the analytical skills they develop within an IT problem domain. The course will provide students with the ability to formulate best practice IT strategies and solutions and during this process create new IT discipline knowledge.

The degree aims to prepare students for work in a specialist IT area through a program of study that balances theoretical content, project-based experiences and industry-oriented perspectives.

Core Units

Students must complete core units in Research Based Practice, Project Management and a major Project or 2 small Projects on the approval of their Course Coordinator.

Majors

Students may select a major of 48 credit points from the following disciplines;

*** Enterprise Systems**
*** Security**
*** Computer Science**
*** Data Science**
*** Business Process Management**
*** Networks**
*** Human Computer Interaction**
*** Information Management**
*** No Major**
See Major Structure Lists for overviews

Masters Strand Options

Students must complete 24 credit points of Advanced Unit Options from the Options Strand

Course Completion Rules

Students should meet the following requirements before they are able to complete the IN21 program:

• Students are required to complete 144 credit points of units.
• Students are required to complete the specified core units.
• Students wishing to specialise must complete the specific unit requirements for a major.
• Students wishing to complete their postgraduate studies without a single area of specialisation must satisfy the unit requirements for graduation with no major.
• Students may be allowed to take up to two units of electives from the list of approved elective units provided.

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1

Code	Title
Year 1, Semester 1	
Major Core Unit	

Master of Information Technology - Graduate Entry

Major Core Unit/ Major Option Unit	
IFN700	Project Management
Advanced Unit Option Or IFN600 Understanding Research	
Year 1, Semester 2	
Major Core Unit/ Major Option Unit	
IFN600	Understanding Research
IFN701	Project 1
Year 2, Semester 1	
Advanced Unit Option	
Major Core Unit/ Major Option Unit	
IFN702	Project 2

Master of Information Science

Handbook

Year	2017
QUT code	IN22
CRICOS	083058F
Duration (full-time)	2 years
Duration (part-time domestic)	4 years
Campus	Gardens Point
Domestic fee (indicative)	2017: $19400 per year full-time (96 credit points)
International fee (indicative)	2017: $27500 per year full-time (96 credit points)
Total credit points	192
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July
Int. Start Months	February, July
Course Coordinator	Dr Ian Stoodley; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au

Domestic Entry requirements

A completed recognised Bachelor Degree in any discipline with a minimum GPA of 4 (on a 7 point scale).

International Entry requirements

A completed recognised Bachelor Degree in any discipline with a minimum GPA of 4 (on a 7 point scale).

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Overview

This degree prepares you for entry into the dynamic and exiting world of the information industry. It has been designed to provide a rich and stimulating learning environment that helps you to develop the skills, knowledge and attitudes needed by contemporary information professionals. You will acquire the knowledge and expertise required to design, plan, develop, manage and evaluate information services to meet the information needs of clients. A hands-on and real world based curriculum gives you the opportunity to explore a wide range of areas within the information field and gain deep understanding within your chosen speciality such as information management or library and information practice.

You will have the opportunity to interact with peers, lecturers and the information sector through social technologies and immersive learning environments. Designed to suit your busy lifestyle the degree can be taken online or face-to-face or a mix of both – the choice is yours. This course will position you for a challenging and rewarding career in today's information-rich and technology-driven age.

Entry Requirements

Domestic students:
A completed recognised Level 7 Bachelor Degree in any discipline with a minimum GPA of 4 (on a 7 point scale).
International students:
A completed recognised Level 7 Bachelor Degree in any discipline with a minimum GPA of 4 (on a 7 point scale).
IELTS overall band score of 6.5 with no sub-band below 6.0, or equivalent.

Course Completion Rules

Students should meet the following requirements before they are able to complete the IN22 program:

• Students are required to complete 192 credit points of units.
• Students are required to complete 60cp of core units comprising a research methods (12cp) unit and 48cp of research project work;
• Students are required to complete 96cp major comprising 8, 12cp units; and
• Students are required to complete 36cp of elective units including suitable units from the MBPM and the MIT

Why Study Information Science ?

Through this degree you will develop a broad understanding of the information science discipline with strong skills in a major selected from Information Management, or Library and Information Practice. The degree will position you to become a professional in a rapidly changing, technology driven and information rich world, having the communication, interpersonal skills and teamwork skills needed to work effectively in a global environment.

Professional Membership

Graduate eligible for membership of the Australian Library and Information Association (ALIA)

Flexible Delivery

This degree is designed to suit your busy lifestyle. Classes run in the evenings and many of the core units can be taken online, face-to-face or a mix of both - the choice is yours.

Domestic Course structure

This degree prepares you for entry into the dynamic and exiting world of the information industry. It has been designed to provide a rich and stimulating learning environment that helps you to develop the skills, knowledge and attitudes needed by contemporary information professionals. You will acquire the knowledge and expertise required to design, plan, develop, manage and evaluate

information services to meet the information needs of clients. A hands-on and real world based curriculum gives you the opportunity to explore a wide range of areas within the information field and gain deep understanding within your chosen speciality such as information management or library and information practice.

International Course structure

This degree prepares you for entry into the dynamic and exiting world of the information industry. It has been designed to provide a rich and stimulating learning environment that helps you to develop the skills, knowledge and attitudes needed by contemporary information professionals. You will acquire the knowledge and expertise required to design, plan, develop, manage and evaluate information services to meet the information needs of clients. A hands-on and real world based curriculum gives you the opportunity to explore a wide range of areas within the information field and gain deep understanding within your chosen speciality such as information management or library and information practice.

Master of Information Science (Information Management)

Handbook

Year	2017
QUT code	IN22
CRICOS	083058F
Duration (full-time)	2 years
Duration (part-time domestic)	4 years
Campus	Gardens Point
Domestic fee (indicative)	2017: $19400 per year full-time (96 credit points)
International fee (indicative)	2017: $27500 per year full-time (96 credit points)
Total credit points	192
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July
Int. Start Months	February, July
Course Coordinator	Dr Ian Stoodley; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	

Domestic Entry requirements

Academic entry requirement

A completed recognised bachelor degree in any discipline with a minimum grade point average (GPA) score of 4.0 (on QUT's 7 point scale).

International Entry requirements

Academic entry requirement

A completed recognised bachelor degree in any discipline with a minimum grade point average (GPA) score of 4.0 (on QUT's 7 point scale).

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Overview

This course will position you for a challenging and rewarding career in the dynamic information professions. It has been designed to provide a dynamic, rich and stimulating learning experience and will allow you develop the skills, knowledge and attitudes needed by contemporary information professionals.

You will develop skills and knowledge related to managing information in a variety of organisational contexts. You will explore core activities including
• alignment of enterprise information and business planning,
• enterprise information policy
• evaluation of information resources and systems, and the
• design, delivery and evaluation of information services to meet client or organisational needs.

You will also develop the communication, interpersonal skills and teamwork skills needed to work effectively in a global environment.

A hands-on, real world based curriculum gives you the opportunity to explore the breadth of the information professions and gain in depth knowledge of the discipline of information management.

Flexible Learning

This degree is designed to suit your busy lifestyle. Classes run in the evenings and many of the core units can be taken online, face-to-face or a mix of both - the choice is yours.

Why choose this course?

Are you interested in the interrelationships between people, information and technology? In this course, you will explore the interrelationships between information, technology and people and develop specialist skills and knowledge that will equip you for a variety of roles in the information professions.

Our innovative, flexible approaches to teaching and learning allow you to balance study with your other commitments.

Our dynamic curriculum provides a launching pad for exciting careers in the information professions.

Real World Learning

The degree aims to prepare students for work as information professional through a program of study that balances theoretical content, project based experiences and industry orientated perspectives.

During your studies, you will:
• Undertake authentic learning and assessment activities that set the key learning activities within information centres or interacting directly with industry practitioners.
• Hear from invited speakers who present their own employment situation as an example of the topic or theme covered in the class.
• Explore real world or research inspired problems within units.
• Undertake industry based research projects, undertaken with both an industry supervisor and an academic supervisor.
• Participate in the QUT Career Mentoring Scheme where students are partnered with a current industry practitioner for 6 months.

Career Outcomes

As a graduate of this course, you will be ready to take on a career as a information technology manager, database manager, web content manager, information architect, cataloguer, knowledge manager, intranet manager, records manager, policy officer, research analyst, information services manager, document

manager, metadata analyst, or community information officer

Research Pathways

This Masters degree provides a pathway to a research degree (Research Masters, Professional Doctorate or PhD). Students who successfully complete IFN600 Research Based Practice and a 48 credit point research project are encouraged to apply for enrolment in a doctoral program. IN22 provides direct pathways for entry to a PhD program as well as to the Faculty's Professional Doctorate, Doctor of Information Technology.

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2

Code	Title
Year 1, Semester 1	
IFN500	Design Thinking for IT
OR	
IFN502	IT Innovation and Disruption
IFN610	Management Issues for Information Professionals
IFN611	Information Retrieval
IFN612	Emerging Technologies for Information Practice
Year 1, Semester 2	
IFN615	Information Management
IFN616	Online Information Services
IFN617	Managing and Organising Collections
IFN700	Project Management
Year 2, Semester 1	
IFN600	Understanding Research
IFN701	Project 1
Select 1 unit from the Information Science Options List	
Year 2, Semester 2	
IFN702	Project 2
Select 1 unit from the Information Science Options List	
Select 1 unit from the Information Science Options List	

Master of Information Science (Library and Information Practice)

Handbook

Year	2017
QUT code	IN22
CRICOS	083058F
Duration (full-time)	2 years
Duration (part-time domestic)	4 years
Campus	Gardens Point
Domestic fee (indicative)	2017: $19400 per year full-time (96 credit points)
International fee (indicative)	2017: $27500 per year full-time (96 credit points)
Total credit points	192
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July
Int. Start Months	February, July
Course Coordinator	Dr Ian Stoodley; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	

Domestic Entry requirements

Academic entry requirement

A completed recognised bachelor degree in any discipline with a minimum grade point average (GPA) score of 4.0 (on QUT's 7 point scale).

International Entry requirements

Academic entry requirement

A completed recognised bachelor degree in any discipline with a minimum grade point average (GPA) score of 4.0 (on QUT's 7 point scale).

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Overview

Librarians empower people by connecting them with information. Libraries provide access to information and technology, as well as programs and services that support business, government and education. They support individuals' lifelong learning and leisure pursuits and assist people to develop literacies.

This degree will prepare you for a rewarding career as a librarian. It has been designed to provide a dynamic, rich and stimulating learning experience that helps you to develop the skills, knowledge and attitudes needed by contemporary information professionals. You will learn how to design, plan, implement, manage and evaluate information services to meet the needs of clients. You will also learn about the management, curation and preservation of information artifacts, as well as the applications of emerging technologies in information practice. In addition to core skills and knowledge related to information practice, you will develop the communication, interpersonal and teamwork skills needed to work effectively in a global environment.

A hands-on, real world based curriculum gives you the opportunity to explore the information professions broadly and to gain a deep understanding of library and information practice.

Flexible Learning

This degree is designed to suit your busy lifestyle. Our flexible approach to teaching allows you to study online or face-to-face, or a mix of both. A blend of on campus classes, online classes, and class recordings provide you with options for how, when and where you engage with unit material.

Why choose this course?

Are you looking for a career in librarianship or the information professions more broadly? In this rapidly changing, technology driven and information rich age, careers in the information professions are varied and exciting. In this course, you will explore the interrelationships between information, technology and people and develop specialist skills and knowledge that will equip you for a variety of roles in the information professions.

Our innovative, flexible approaches to teaching and learning allow you to balance study with your other commitments.

Real world learning

The degree aims to prepare students for work as information professional through a program of study that balances theoretical content, project based experiences and industry orientated perspectives.

During your studies, you will:
• Undertake authentic learning and assessment activities that set the key learning activities within actual libraries and information centres or interacting directly with industry practitioners.
• Hear from invited speakers who present their own employment situation as an example of the topic or theme covered in the class.
• Explore real world or research inspired problems within units.
• Undertake industry based research projects, undertaken with both an industry supervisor and an academic supervisor.
• Participate in the QUT Career Mentoring Scheme where students are partnered with a current industry practitioner for 6 months.

Career outcomes

As a graduate of this course, you will be ready to take on a career as a librarian, specialist librarian, database manager,

web content manager, information architect, cataloguer, knowledge manager, or intranet manager.

Employment opportunities are extensive. Your ALIA accredited qualification can take you into a range of libraries, including
• academic libraries
• public libraries
• state and national libraries
• special libraries and information centres such as
o law libraries
o health and medical centres
o music libraries.

Opportunities also exist beyond traditional library contexts, including careers in
• knowledge management
• records management
• web and intranet development
• research, development and policy.

Professional recognition

As a graduate, you will be eligible for membership of the Australian Library and Information Association (ALIA).

Research pathways

This Masters degree provides a pathway to a research degree (Research Masters, Professional Doctorate or PhD). Students who successfully complete IFN600 Research Based Practice and a 48 credit point research project are encouraged to apply for enrolment in a doctoral program. IN22 provides direct pathways for entry to a PhD program as well as to the Faculty's Professional Doctorate, Doctor of Information Technology.

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1
- Year 2, Semester 2

Code	Title
Year 1, Semester 1	
IFN610	Management Issues for Information Professionals
IFN611	Information Retrieval
IFN612	Emerging Technologies for Information Practice
IFN620	Professional Practice
Year 1, Semester 2	
IFN614	Information Programs
IFN615	Information Management
IFN616	Online Information Services
IFN617	Managing and Organising Collections
Year 2, Semester 1	
IFN600	Understanding Research
IFN701	Project 1
Select 1 unit from the Information Science Options List	
Year 2, Semester 2	
IFN702	Project 2
Select 1 unit from the Information Science Options List	
Select 1 unit from the Information Science Options List	

Master of Business Process Management

Handbook

Year	2017
QUT code	IN23
CRICOS	062622A
Duration (full-time)	1.5 years
Duration (part-time domestic)	3 years
Campus	Gardens Point
Domestic fee (indicative)	2017: $20100 per year full-time (96 credit points)
International fee (indicative)	2017: $27700 per year full-time (96 credit points)
Total credit points	144
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July
Int. Start Months	February, July
Course Coordinator	Dr Wasana Bandara email : m.wynn@qut.edu.au ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	

Domestic Entry requirements

Academic entry requirements

A completed recognised bachelor degree (or higher) in business or information technology with a minimum grade point average (GPA) score of 4.0 (on QUT's 7 point scale).

A completed recognised bachelor degree (or higher) in any discipline with a minimum grade point average (GPA) score of 4.0 (on QUT's 7 point scale) *and* five (5) years industry experience in business, information technology or business process management.

International Entry requirements

Academic entry requirements

A completed recognised bachelor degree (or higher) in business or information technology with a minimum grade point average (GPA) score of 4.0 (on QUT's 7 point scale); *or*

A completed recognised bachelor degree (or higher) in any discipline with a minimum grade point average (GPA) score of 4.0 (on QUT's 7 point scale) *and* five (5) years industry experience in business, information technology or business process management.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Overview

The Master of Business Process Management will provide graduates with the skills and knowledge to create and align information systems to effectively support business and enable business strategy. The program examines business-IT alignment issues through appropriate theory and skill development, and provides career enhancement opportunities into senior management and governance roles. Students will study specialist units in Business Process Management specialisation and may undertake additional study in the areas of corporate systems, IT professional services, enterprise architecture and systems, and information and knowledge management.

Course Structure

To be eligible for the Master of Business Process Management (IN23):

• Students are required to complete 144 credit points of units.
• Students are required to complete the specified core units (120cp) which includes 48cp in specialist Business Process Management units
• Students must also complete two units (24cp) of electives from the list of approved elective units provided.

Domestic Course structure

The Master of Business Process Management provides graduates with the skills and knowledge to create and align information systems to effectively support business and enable business strategy. The program examines business-IT alignment issues through appropriate theory and skill development, and provides career enhancement opportunities into senior management and governance roles.

Students will study specialist units in Business Process Management specialisation and may undertake additional study in the areas of corporate systems, IT professional services, enterprise architecture and systems, and information and knowledge management.

Course completion rules

- Students are required to complete 144 credit points of units.
- Students are required to complete the specified core units (120cp) which includes 48cp in specialist Business Process Management units.
- Students must also complete two units (24cp) of electives from the list of approved elective units provided. NB: *If you have no BPM Background, you should complete IFN515 in your first semester*

International Course structure

The Master of Business Process Management provides graduates with the skills and knowledge to create and align information systems to effectively support business and enable business strategy. The program examines business-IT alignment issues through appropriate theory and skill development, and provides career enhancement

opportunities into senior management and governance roles.

Students will study specialist units in Business Process Management specialisation and may undertake additional study in the areas of corporate systems, IT professional services, enterprise architecture and systems, and information and knowledge management.

Course completion rules

- Students are required to complete 144 credit points of units.
- Students are required to complete the specified core units (120cp) which includes 48cp in specialist Business Process Management units
- Students must also complete two units (24cp) of electives from the list of approved elective units provided. NB: *Students are expected to have funamental knowledge of BPM (IFN515 or equivalent) prior to commenceing this course.*

Sample Structure

Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1

Code	Title
Year 1, Semester 1	
IFN515	Fundamentals of Business Process Management
IFN651	Lean Six Sigma
IFN600	Understanding Research
IFN700	Project Management
Year 1, Semester 2	
IFN650	Business Process Analytics
IFN652	Enterprise Business Process Management
IFN701	Project 1
Year 2, Semester 1	
IFN702	Project 2
Master BPM Options List	
Master BPM Options List	

Master of Information Technology

Handbook

Year	2017
QUT code	IT43
CRICOS	003776E
Duration (full-time)	1.5 years
Duration (part-time domestic)	3 years
Campus	Gardens Point
Total credit points	144
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July LIS part-time only in July
Int. Start Months	February, July
Course Coordinator	Dr Hasmukh Morarji; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au

Domestic Entry requirements

Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.0 (on a 7-point scale)

OR

Evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

Applicants without an undergraduate degree in Information Technology (or equivalent) are recommended to select 3 Basic Elective Units as their electives. These electives are to be taken at the beginning of their studies.

International Entry requirements

Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.0 (on a 7-point scale)

OR

Evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

This Program allows students who obtain IELTS 6.0 with no sub-band lower than 5.0 to undertake the Postgraduate Communication Pathway program where they undertake two Communication units as electives in the first semester of their Masters course.

Course Overview

Information technology is now firmly ensconced in society with all the other business practices that constitute modern organisations. This Master of Information Technology course has interfaculty contributions from the Faculties of Science & Engineering, Business, Creative Industries and Law, matching closely to their relevant IT research areas. Recognition of the burgeoning of specialised areas within the Information Industries is reflected in the structure of this course through ten different majors other than the "No Major" option:

- Software Architecture
- Network Management
- Enterprise Systems
- Games Production
- Games Design
- Security
- Library and Information Studies (Multi-modal)
- Information Management
- Digital Environments
- Executive Information Practice

The structure of this course is designed so that a student does not have to decide on a major until after the first semester. Elective and core units may be selected first. Students must generally complete the core unit and seven units from within their major. The only exception to this structure is in the Library and Information Studies major.

Electives:
Students can generally select up to 4 electives; again, the exception is in the Library and Information Studies major, where students can select no more than two electives.

Students without an IT degree are recommended to select three Basic Elective Units as their electives.

Students wishing to use the Masters program as a pathway to a PhD program within QUT are recommended to select 4 advanced research or project units as their electives. These students are also advised to enrol in INN700 Introduction to Research as part of their major.

It is possible, for students who wish, to complete dual Master degrees. Students can receive up to four units of credit for a previous Masters degree as part of their elective unit block. Thus, they are only required to complete the major and core. Students may then receive their Masters degree from the Science and Engineering

Faculty in two semesters.

Students undertaking units from the MBA program (GSN units) in the Graduate School of Business (GSB) must meet the MBA entry requirements. Please see the GSB website for further information.

The Library and Information Studies major is offered in multimodal delivery allowing students to complete their studies either face-to-face or online.

Online Delivery

The Library and Information Studies major is offered in multimodal delivery allowing students to complete their studies either face-to-face or online.

The Executive Information Practice major is offered in external mode allowing students to complete their studies online.

Course completion rules

Students should meet the following requirements before they are able to complete the Masters program:
• Students are required to complete 144 credit points of units.
• Students are required to complete the specified core unit.
• Students wishing to specialise must complete the specific unit requirements for a major.
• Students wishing to complete their postgraduate studies without a single area of specialisation must satisfy the unit requirements for graduation with no major.
• Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Science and Engineering Faculty.

Early exit options

Students enrolled in this course may be eligible to exit their courses with a Graduate Certificate (IT85), after successful completion of an approved 48 credit points, or with a Graduate Diploma (IT37), after successful completion of an approved 96 credit points

Domestic Course structure

This course allows students who might like exposure to a number of units across several specialisation areas to undertake 84 credit points from any postgraduate Information Technology units offered. This program suits students who are not looking to undertake a discipline-specific postgraduate program, but rather complementary studies. This study area is the most flexible of the areas offered and thus is the default for students who do not select any major.

International Course structure

This course allows students who might like exposure to a number of units across several specialisation areas to undertake 84 credit points from any postgraduate Information Technology units offered. This program suits students who are not looking to undertake a discipline-specific postgraduate program, but rather complementary studies. This study area is the most flexible of the areas offered and thus is the default for students who do not select any major.

Master of Information Technology (No Major)

Handbook

Year	2017
QUT code	IT43
CRICOS	003776E
Duration (full-time)	1.5 years
Duration (part-time domestic)	3 years
Campus	Gardens Point
Total credit points	144
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July
Int. Start Months	February, July
Course Coordinator	Dr Hasmukh Morarji; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Science and Engineering Faculty 3138 8822 sef.enquiry@qut.edu.au

Domestic Entry requirements

Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.0 (on a 7-point scale)

OR

Evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

Applicants without an undergraduate degree in Information Technology (or equivalent) are recommended to select 3 Basic Elective Units as their electives. These electives are to be taken at the beginning of their studies.

International Entry requirements

Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.0 (on a 7-point scale)

OR

Evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

This Program allows students who obtain IELTS 6.0 with no sub-band lower than 5.0 to undertake the Postgraduate Communication Pathway program where they undertake two Communication units as electives in the first semester of their Masters course.

Domestic Course structure

This course allows students who might like exposure to a number of units across several specialisation areas to undertake 84 credit points from any postgraduate Information Technology units offered. This program suits students who are not looking to undertake a discipline-specific postgraduate program, but rather complementary studies. This study area is the most flexible of the areas offered and thus is the default for students who do not select any major.

International Course structure

This course allows students who might like exposure to a number of units across several specialisation areas to undertake 84 credit points from any postgraduate Information Technology units offered. This program suits students who are not looking to undertake a discipline-specific postgraduate program, but rather complementary studies. This study area is the most flexible of the areas offered and thus is the default for students who do not select any major.

Sample Structure

Code	Title
Core	
IFN700	Project Management
[INN500 replaced by IFN700 in 2015.]	
Electives	
- Select one from: Any IT postgraduate unit starting INN5xx, INN6xx, INN7xx of IFN6xx.	
Plus	
- Select any 6 (total of 72cp) postgraduate IT units NOT in the "Basic Unit List".	
Plus	
- Select 48 credit points of any postgraduate units	

Master of Information Technology (Enterprise Systems)

Handbook

Year	2017
QUT code	IT43
CRICOS	003776E
Duration (full-time)	1.5 years
Duration (part-time domestic)	3 years
Campus	Gardens Point
Total credit points	144
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July
Int. Start Months	February, July
Course Coordinator	Dr Hasmukh Morarji; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Science and Engineering Faculty 3138 8822 sef.enquiry@qut.edu.au

Domestic Entry requirements

Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.0 (on a 7-point scale)

OR

Evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

Applicants without an undergraduate degree in Information Technology (or equivalent) are recommended to select 3 Basic Elective Units as their electives. These electives are to be taken at the beginning of their studies.

International Entry requirements

Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.0 (on a 7-point scale)

OR

Evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

Applicants without an undergraduate degree in Information Technology (or equivalent) are recommended to select 3 Basic Elective Units as their electives. These electives are to be taken at the beginning of their studies.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

This Program allows students who obtain IELTS 6.0 with no sub-band lower than 5.0 to undertake the Postgraduate Communication Pathway program where they undertake two Communication units as electives in the first semester of their Masters course.

Career Progression

Careers include business analyst, systems analyst, systems manager or database manager.

Course completion rules

Students should meet the following requirements before they are able to complete the Masters program:

- Students are required to complete 144 credit points of units.
- Students are required to complete the specified core unit.
- Students wishing to specialise must complete the specific unit requirements for a major.
- Students wishing to complete their postgraduate studies without a single area of specialisation must satisfy the unit requirements for graduation with no major.
- Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Science and Engineering Faculty.

Early exit options

Students enrolled in this course may be eligible to exit their courses with a Graduate Certificate (IT85), after successful completion of an approved 48 credit points, or with a Graduate Diploma (IT37), after successful completion of an approved 96 credit points

Domestic Course structure

This major provides you with advanced knowledge that will enable you to specialise in an area of business operations such as logistics and finance. You will build an understanding of enterprise system processes and configuration activities which occur in companies using enterprise systems. You will understand the business activities that these systems support, preparing you for business, technical or system support roles. The course provides you with hands-on experience with successful enterprise systems so that you can put into practice the theory that supports business activities.

This course also seeks to develop logical thinking and the capability to understand and deal with complex systems, within a business management framework.

Course completion rules

There are a number of requirements that need to be met before completing the program. Students are required to complete:

- 144 credit points of units and the specified core unit.
- the specific unit requirements for a major if seeking a single area of specialisation. Students not seeking a single area of specialisation may graduate with no major.
- 48 credit points of any postgraduate units.

Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Science and Engineering Faculty.

International Course structure

This major provides you with advanced knowledge that will enable you to specialise in an area of business operations such as logistics and finance. You will build an understanding of enterprise system processes and configuration activities which occur in companies using enterprise systems. You will understand the business activities that these systems support, preparing you for business, technical or system support roles. The course provides you with hands-on experience with successful enterprise systems so that you can put into practice the theory that supports business activities.

This course also seeks to develop logical thinking and the capability to understand and deal with complex systems, within a business management framework.

Course completion rules

Students should meet the following requirements before they are able to complete the Masters program:

• Students are required to complete 144 credit points of units.
• Students are required to complete the specified core unit.
• Students wishing to specialise must complete the specific unit requirements for a major.
• Students wishing to complete their postgraduate studies without a single area of specialisation must satisfy the unit requirements for graduation with no major.
• Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Science and Engineering Faculty.

Sample Structure

Semesters

- Core
- Enterprise Systems major:
- Elective Units

Code	Title
Core	
IFN700	Project Management
[INN500 replaced by IFN700 in 2015.]	
Enterprise Systems major:	
IFN662	Enterprise Systems and Applications
Plus select 6 units from the following:	
IFN515	Fundamentals of Business Process Management
IFN600	Understanding Research
IFN645	Data Mining Technology and Applications
IFN650	Business Process Analytics
IFN651	Lean Six Sigma
IFN660	Programming Language Theory
IFN663	Advanced Enterprise Architecture
IFN665	Advanced Topic 1
INN701	Advanced Research Topics
Elective Units	
Select any four Postgraduate units	

Master of Information Technology (Information Management)

Handbook

Year	2017
QUT code	IT43
CRICOS	003776E
Duration (full-time)	1.5 years
Duration (part-time domestic)	3 years
Campus	Gardens Point
Total credit points	144
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July
Int. Start Months	February, July
Course Coordinator	Dr Hasmukh Morarji; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Kate Davis 3138 8822 sef.enquiry@qut.edu.au

Domestic Entry requirements

Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.0 (on a 7-point scale)

OR

Evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

Applicants without an undergraduate degree in Information Technology (or equivalent) are recommended to select 3 Basic Elective Units as their electives. These electives are to be taken at the beginning of their studies.

International Entry requirements

Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.0 (on a 7-point scale)

OR

Evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

This Program allows students who obtain IELTS 6.0 with no sub-band lower than 5.0 to undertake the Postgraduate Communication Pathway program where they undertake two Communication units as electives in the first semester of their Masters course.

Course completion rules

Students should meet the following requirements before they are able to complete the Masters program:

- Students are required to complete 144 credit points of units.
- Students are required to complete the specified core unit.
- Students wishing to specialise must complete the specific unit requirements for a major.
- Students wishing to complete their postgraduate studies without a single area of specialisation must satisfy the unit requirements for graduation with no major.
- Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Science and Engineering Faculty.

Early exit options

Students enrolled in this course may be eligible to exit their courses with a Graduate Certificate (IT85), after successful completion of an approved 48 credit points, or with a Graduate Diploma (IT37), after successful completion of an approved 96 credit points

Domestic Course structure

The Information Management major provides you with the skills and knowledge to find employment in the information and knowledge management industry. You will gain awareness of the activities in which information management professionals are engaged, in various organisational contexts. You will have the opportunity through optional units to tailor your learning to specific areas such as health services, education, creative industries and information technology.

You will develop skills and knowledge in information management including the alignment of enterprise information and business planning; enterprise information policy; evaluation of information resources and systems; and the design, delivery and evaluation of information services to meet client or organisational needs.

Course completion rules

There are a number of requirements that need to be met before completing the program. Students are required to complete:

- 144 credit points of units and the specified core unit.
- the specific unit requirements for a

major if seeking a single area of specialisation. Students not seeking a single area of specialisation may graduate with no major.
- 48 credit points of postgraduate units.

Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Science and Engineering Faculty.

International Course structure

The Information Management major provides you with the skills and knowledge to find employment in the information and knowledge management industry. You will gain awareness of the activities in which information management professionals are engaged, in various organisational contexts. You will have the opportunity through optional units to tailor your learning to specific areas such as health services, education, creative industries and information technology.

You will develop skills and knowledge in information management including the alignment of enterprise information and business planning; enterprise information policy; evaluation of information resources and systems; and the design, delivery and evaluation of information services to meet client or organisational needs.

Course completion rules

Students should meet the following requirements before they are able to complete the Masters program:

- Students are required to complete 144 credit points of units.
- Students are required to complete the specified core unit.
- Students wishing to specialise must complete the specific unit requirements for a major.
- Students wishing to complete their postgraduate studies without a single area of specialisation must satisfy the unit requirements for graduation with no major.
- Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Science and Engineering Faculty.

Sample Structure

Code	Title
All of the following units:	
IFN700	Project Management
IFN610	Management Issues for Information Professionals
IFN611	Information Retrieval
IFN615	Information Management
IFN616	Online Information Services
IFN617	Managing and Organising Collections
IFN690	Advanced User Centred Design
[INN540 is replaced by IFN690 from 2015]	
IFN665	Advanced Topic 1
[INN690 is replaced by IFN665 from 2015]	
Elective Units	
Select any four Postgraduate Units	

Master of Information Technology (Library and Information Studies)

Handbook

Year	2017
QUT code	IT43
CRICOS	003776E
Duration (full-time)	1.5 years
Duration (part-time domestic)	3 years
Campus	Gardens Point
Total credit points	144
Credit points full-time sem.	48
Credit points part-time sem.	24
Dom. Start Months	February, July July offering is part-time only.
Course Coordinator	Dr Hasmukh Morarji; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Kate Davis 3138 8822 sef.enquiry@qut.edu.au

Domestic Entry requirements

Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.0 (on a 7-point scale)

OR

Evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

Applicants without an undergraduate degree in Information Technology (or equivalent) are recommended to select 3 Basic Elective Units as their electives. These electives are to be taken at the beginning of their studies.

International Entry requirements

Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.0 (on a 7-point scale)

OR

Evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

This Program allows students who obtain IELTS 6.0 with no sub-band lower than 5.0 to undertake the Postgraduate Communication Pathway program where they undertake two Communication units as electives in the first semester of their Masters course.

Professional Recognition

Graduates from the specialisation will be eligible for associate membership of the Australian Library and Information Association (ALIA).

Course completion rules

Before they are able to complete the Masters program:

- Students are required to complete 144 credit points of units.
- Students are required to complete the specified core unit.
- Students wishing to specialise must complete the specific unit requirements for a major.
- Students wishing to complete their postgraduate studies without a single area of specialisation must satisfy the unit requirements for graduation with no major.
- Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Science and Engineering Faculty.

Online delivery

The Library and Information Science major is offered in multimodal delivery allowing students to complete their studies either face-to-face or online.

Early exit options

Students enrolled in this course may be eligible to exit their courses with a Graduate Certificate (IT85), after successful completion of an approved 48 credit points, or with a Graduate Diploma (IT37), after successful completion of an approved 96 credit points.

Domestic Course structure

The Library and Information Science major provides graduates with the skills to find employment in the library and information industry. You will acquire the knowledge and expertise required to design, plan, develop, manage and evaluate library and information services to meet the information needs of clients.

Course completion rules

There are a number of requirements that need to be met before completing the program. Students are required to complete:

- 144 credit points of units and the specified core unit.
- the specific unit requirements for a major if seeking a single area of specialisation. Students not seeking a single area of specialisation may

graduate with no major.
- 24 credit points of project or advanced research units.

Students may be allowed to take up to two units of electives. These units may be selected from postgraduate units outside of the Science and Engineering Faculty.

International Course structure

The Library and Information Science major provides graduates with the skills to find employment in the library and information industry. You will acquire the knowledge and expertise required to design, plan, develop, manage and evaluate library and information services to meet the information needs of clients.

Course completion rules

Before they are able to complete the Masters program:

- Students are required to complete 144 credit points of units.
- Students are required to complete the specified core unit.
- Students wishing to specialise must complete the specific unit requirements for a major.
- Students wishing to complete their postgraduate studies without a single area of specialisation must satisfy the unit requirements for graduation with no major.
- Students may be allowed to take up to two units of electives. These units may be selected from postgraduate units outside of the Science and Engineering Faculty.

Sample Structure

Code	Title
Library and Information Science Strand	
IFN615	Information Management
[INN330 replaced by IFN615 in 2015.]	
IFN610	Management Issues for Information Professionals
[INN331 replaced by IFN610 in 2015.]	
Select two units from the Postgraduate Unit Options:	
IFN611	Information Retrieval
IFN612	Emerging Technologies for Information Practice
IFN614	Information Programs
IFN617	Managing and Organising Collections
IFN620	Professional Practice
IFN616	Online Information Services
IFN665	Advanced Topic 1

The following units have been discontinued, but will count as a PG unit option:
INN532 Collections Management (disc 31/12/2016)

Master of Information Technology (Advanced)

Handbook

Year	2017
QUT code	IT44
CRICOS	053123F
Duration (full-time)	2 years
Duration (part-time domestic)	4 years
Campus	Gardens Point
Total credit points	192
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July
Int. Start Months	February, July
Course Coordinator	Dr Hasmukh Morarji; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au

Domestic Entry requirements

Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.0 (on a 7-point scale)

OR

Evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

International Entry requirements

Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.0 (on a 7-point scale)

OR

Evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

This Program allows students who obtain IELTS 6.0 with no sub-band lower than 5.0 to undertake the Postgraduate Communication Pathway program where they undertake two Communication units as electives in the first semester of their Masters course.

Description

Information technology is now firmly ensconced in society with all the other business practices that constitute modern organisations. This Master of Information Technology (Advanced) course has interfaculty contributions from the Faculties of Science & Engineering, Business, Creative Industries and Law, matching closely to their relevant IT research areas. Recognition of the burgeoning of specialised areas within the Information Industries is reflected in course structures that provide for ten different majors other than the "No Major" option:

- Software Architecture
- Network Management
- Enterprise Systems
- Games Production
- Games Design
- Security
- Library and Information Studies
- Information Management
- Digital Environments
- Executive Information Practice

The structure of this course is designed so that a student does not have to decide on a major until after the first semester. Elective and core units may be selected first. Students must generally complete the core unit and seven units from within their major. The only exception to this structure is in the Library and Information Studies major.

Electives:
Students can generally select up to 4 electives; again, the exception is in the Library and Information Studies major, where students can select no more than two electives.

Students without an IT degree are recommended to select three Basic Elective Units as their electives.

Advanced Research Units (Complementary Studies):
Students who enrol in the Masters Advanced program must complete four advanced research or project units. It is recommended that students complete advanced research and project units in the latter half of their course.

Students wishing to use the Masters Advanced program as a pathway to a PhD program within QUT are advised to enrol in INN700 Introduction to Research as part of their major and take INN701 Advanced Research Methodologies as an elective.

It is possible for students to complete dual Master degrees. Students can receive up to four units of credit for a previous Masters degree as part of their elective unit block. Thus, they are only required to complete the major and core. Students may then receive their Masters degree from the Science and Engineering Faculty in two semesters.

Students undertaking units from the MBA program (GSN units) in the Graduate School of Business (GSB) must meet the MBA entry requirements. Please see the GSB website for further information.

Course completion rules

Students should meet the following requirements before they are able to complete the Masters Advanced program:
• Students are required to complete 192 credit points of units.
• Students are required to complete the specified core unit.
• Students seeking a single area of specialisation must complete the specific unit requirements for a major.
• Students not seeking a single area of specialisation may graduate with no major.
• Students must complete 48 credit points of project or advanced research units.
• Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Science and Engineering Faculty.

Early exit options

Students enrolled in this course may be eligible to exit their courses with a Graduate Certificate (IT85), after successful completion of an approved 48 credit points, or with a Graduate Diploma (IT37), after successful completion of an approved 96 credit points, or with a Masters (IT43) after successful completion of an approved 144 credit points.

Domestic Course structure

This course allows students who might like exposure to a number of units across several specialisation areas to undertake 84 credit points from any postgraduate Information Technology units offered. This program suits students who are not looking to undertake a discipline-specific postgraduate program, but rather complementary studies. This study area is the most flexible of the areas offered and thus is the default for students who do not select any major.

International Course structure

This course allows students who might like exposure to a number of units across several specialisation areas to undertake 84 credit points from any postgraduate Information Technology units offered. This program suits students who are not looking to undertake a discipline-specific postgraduate program, but rather complementary studies. This study area is the most flexible of the areas offered and thus is the default for students who do not select any major.

Sample Structure

Semesters

- Core
- Major Study Areas
- Special Entry Requirements

Code	Title
Core	
IFN700	Project Management
Major Study Areas	
Students choose one of the following majors (see Major option list):	
No Major (Information Technology)	
Digital Environments (discontinued)	
Enterprise Systems	
Executive Information Practice	
Games Design (discontinued)	
Games Production (discontinued)	
Information Management	
Library and Information Studies	
Network Management	
Security	
Software Architecture (discontinued)	
Special Entry Requirements	
Library and Information Studies:	
A bachelor degree in any discipline other than library and information science with a grade point average of at least 4.5 (On a 7 points scale).	

Master of Information Technology (Advanced) (No Major)

Handbook

Year	2017
QUT code	IT44
CRICOS	053123F
Duration (full-time)	2 years
Duration (part-time domestic)	4 years
Campus	Gardens Point
Total credit points	192
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July
Int. Start Months	February, July
Course Coordinator	Dr Hasmukh Morarji; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Science and Engineering Faculty 3138 8822 sef.enquiry@qut.edu.au

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

This Program allows students who obtain IELTS 6.0 with no sub-band lower than 5.0 to undertake the Postgraduate Communication Pathway program where they undertake two Communication units as electives in the first semester of their Masters course.

Domestic Course structure

This course allows students who might like exposure to a number of units across several specialisation areas to undertake 84 credit points from any postgraduate Information Technology units offered. This program suits students who are not looking to undertake a discipline-specific postgraduate program, but rather complementary studies. This study area is the most flexible of the areas offered and thus is the default for students who do not select any major.

International Course structure

This course allows students who might like exposure to a number of units across several specialisation areas to undertake 84 credit points from any postgraduate Information Technology units offered. This program suits students who are not looking to undertake a discipline-specific postgraduate program, but rather complementary studies. This study area is the most flexible of the areas offered and thus is the default for students who do not select any major.

Sample Structure

Semesters

- Core
- Electives
- Advanced Research Units (Project Units)

Code	Title
Core	
IFN700	Project Management

Electives
- Select one from: Any IT postgraduate unit starting INN5xx,INN6xx, INN7xx or IFN6xx.
Plus
- Select any 6 (total of 72cp) postgraduate IT units NOT in the "Basic Unit List".
Plus
- Select 48 credit points of any postgraduate units
Advanced Research Units (Project Units)
Students of IT44 are required to complete 48 credit points of advanced research/project units in the form of a 48 credit point Dissertation or two 24 credit point Projects.

Master of Business Process Management

Handbook

Year	2017
QUT code	IT53
CRICOS	062622A
Duration (full-time)	1.5 years
Duration (part-time domestic)	3 years
Campus	Gardens Point
Total credit points	144
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July
Int. Start Months	February, July
Course Coordinator	Dr Wasana Bandara; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	Science and Engineering Faculty 3138 8822 sef.enquiry@qut.edu.au

Domestic Entry requirements

To be eligible for this course, applicants must have a bachelor degree with a grade point average of at least 4.0 (on a 7-point scale) AND demonstrated competence in the basic skills and concepts of personal or office computer usage.

International Entry requirements

A bachelor degree with a grade point average of at least 4.0 (on a 7-point scale) AND demonstrated competence in the basic skills and concepts of personal or office computer usage.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

This Program allows students who obtain IELTS 6.0 with no sub-band lower than 5.0 to undertake the Postgraduate Communication Pathway program where they undertake two Communication units as electives in the first semester of their Masters course.

Course Overview

The Master of Business Process Management will provide graduates with the skills and knowledge to create and align information systems to effectively support business and enable business strategy.

The program examines business-IT alignment issues through appropriate theory and skill development, and provides career enhancement opportunities into senior management and governance roles.

Students may undertake study in the areas of corporate systems and business process management, IT professional services (including project management and IT consulting), enterprise architecture and systems, and information and knowledge management within business processes.

Course Structure

Students are required to complete 144 credit points of units.

- 48 credit points (4 units) of IT related units (Block A)
- 48 credit points (4 units) of Business Process Core units (Block B)
- 48 credit points (4 units) of General Elective units (Block C)

Students may be eligible to receive a Graduate Certificate in Business Process Management after completing 48 credit points (4 units) consisting of the four specified units.

Students may also be eligible to receive a Graduate Certificate in Corporate Systems Management after completing 48 credit points (4 units) consisting of the four specified units.

Unit Incompatibility/Translation Information

Details on the translation and incompatibility of old and new units is located here:
Postgraduate Translation Table
If you have completed the unit(s) listed under the “Translation Unit Codes” column, you are not permitted to enrol in the listed new code.

Domestic Course structure

This degree provides graduates with the skills and knowledge to design, execute and manage business process improvement initiatives at project, program and organisation levels. Students undertake study in areas of business/process analysis, process management, process modelling, process improvement, and process automation.

There are complementary units in professional services (including project management and IT consulting), enterprise systems, and information and knowledge management within business processes.

Course completion rules

Students are required to complete 144 credit points of units.

- 48 credit points (4 units) of IT related units (Block A)
- 48 credit points (4 units) of Business Process Core units (Block B)
- 48 credit points (4 units) of General Elective units (Block C)

Students may be eligible to receive a

Master of Business Process Management

Graduate Certificate in Business Process Management after completing 48 credit points (4 units) consisting of the four specified units.
Students may also be eligible to receive a Graduate Certificate in Corporate Systems Management after completing 48 credit points (4 units) consisting of the four specified units.

International Course structure

This degree provides graduates with the skills and knowledge to design, execute and manage business process improvement initiatives at project, program and organisation levels. Students undertake study in areas of business/process analysis, process management, process modelling, process improvement, and process automation.

There are complementary units in professional services (including project management and IT consulting), enterprise systems, and information and knowledge management within business processes.

Course completion rules
Students are required to complete 144 credit points of units.

- 48 credit points (4 units) of IT related units (Block A)
- 48 credit points (4 units) of Business Process Core units (Block B)
- 48 credit points (4 units) of General Elective units (Block C)

Students may be eligible to receive a Graduate Certificate in Business Process Management after completing 48 credit points (4 units) consisting of the four specified units.
Students may also be eligible to receive a Graduate Certificate in Corporate Systems Management after completing 48 credit points (4 units) consisting of the four specified units.

Sample Structure

Semesters

Code	Title
BLOCK A - IT RELATED UNITS (48cp) - Select 4 Units	
1. 4 units from IT Graduate Gateway units (Recommended for students who studied IT).	
OR	
2. 4 units from Non-IT Graduate Basic Units (Recommend for students who dont have IT background).	
OR	
3. Students can also mix any 4 units from IT-Graduate and Non-IT Graduate Units.	
BLOCK A: IT Graduates Gateway Units	
IFN504	Corporate Information Systems
IFN509	Data Manipulation
IFN600	Understanding Research
IFN615	Information Management
IFN645	Data Mining Technology and Applications
IFN647	Advanced Information Storage and Retrieval
IFN662	Enterprise Systems and Applications
IFN700	Project Management
INN700	Introduction to Research
The following units have been discontinued, but will still count as a Gateway Unit Option:	
INN221 Technology Management (disc 31/12/2016)	
INN322 Information Systems Consulting (disc 31/12/2015)	
BLOCK B - BUSINESS PROCESS RELATED CORE UNITS (48cp) - Select 4 units	
IFN610	Management Issues for Information Professionals
IFN650	Business Process Analytics
IFN651	Lean Six Sigma
IFN652	Enterprise Business Process Management
MGN505	Consulting and Change Management
The following units have been discontinued, but will still count as a Business Process Management Unit Option:	
INN326 Advanced Process Modelling (disc 31/12/2015)	
INN690 Minor Project 1 (disc 30/06/2015)	
BLOCK C - GENERAL ELECTIVE UNITS (48cp) - Select 4 units	
General electives can be selected from the following options:	
1. IT Industry or research project (There are 12cps, 24cps and 48 cps project unit depending on the scale of project).	
2. IT Postgraduate units including IT Gateway units or Non-IT Graduate Units.	
3. Block B Core units.	
4. QUT University wide postgraduate units - that will align to the Business Process Management field and/ or your career path. This should be discussed and approved by the Course Coordinator.	
Grad Cert Business Process Management IT61 exit point only	
IFN615	Information Management
IFN650	Business Process Analytics
IFN651	Lean Six Sigma
IFN662	Enterprise Systems and Applications
Grad Cert Corporate Systems Management IT62 exit point only	
IFN610	Management Issues for Information Professionals
IFN665	Advanced Topic 1
Students must choose 2 of the following units from the Basic Unit Options:	
IFN504	Corporate Information Systems
IFN515	Fundamentals of Business Process Management
IFN700	Project Management
The following unit has been discontinued, but will still count as a Basic Unit Option:	
INN221 Technology Management (disc 31/12/2016)	

Master of Applied Science (Medical Physics)

Handbook

Year	2017
QUT code	PH80
CRICOS	043548G
Duration (full-time)	1.5 years
Duration (part-time domestic)	3 years
Campus	Gardens Point
Domestic fee (indicative)	2017: CSP $9100 per year full-time (96 credit points)
International fee (indicative)	2017: $27900 per year full-time (96 credit points)
Total credit points	144
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	February, July
Int. Start Months	February, July
Course Coordinator	Dr Andrew Fielding; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	

Domestic Entry requirements

Academic entry requirements

- A completed recognised bachelor degree (or higher award) in physics or bachelor degree in science with a major in physics; *or*
- Applicants with other qualifications (eg medical engineering) may enrol with the approval of the course coordinator. In some instances, a modified program may be necessary.

International Entry requirements

Academic entry requirements

A completed recognised bachelor degree (or higher award) in physics or in science with a major in physics.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Design

Stage 1— Graduate Diploma (PH71) comprises assessed coursework such as advanced lectures, seminars, reading units or independent study. Full time students will need an average of 14 hours a week of formal contact (seven hours for parttime students). Students can graduate with a Graduate Diploma in Medical Physics after satisfactory completion of Stage 1.

Stage 2— Master of Applied Science (PH80) students undertake a program of supervised research and investigation that can be completed at QUT or in a suitable external institution.

Professional Recognition

The course is accredited by the Australasian College of Physical Sciences and Engineers in Medicine.

Domestic Course structure

Stage 1—Graduate Diploma (PH71) comprises assessed coursework such as advanced lectures, seminars, reading units or independent study. Full-time students will need an average of 14 hours a week of formal contact (seven hours for part-time students). Students can graduate with a Graduate Diploma in Medical Physics after satisfactory completion of Stage 1.

Stage 2—Master of Applied Science (PH80) students undertake a program of supervised research and investigation that can be completed at QUT or in a suitable external institution.

International Course structure

Stage 1—Graduate Diploma (PH71) comprises assessed coursework such as advanced lectures, seminars, reading units or independent study. Full-time students will need an average of 14 hours a week of formal contact (seven hours for parttime students). Students can graduate with a Graduate Diploma in Medical Physics after satisfactory completion of Stage 1.

Stage 2—Master of Applied Science (PH80) students undertake a program of supervised research and investigation that can be completed at QUT or in a suitable external institution.

Sample Structure

Semesters

- STAGE 1: Students must complete units from the list below, totalling 96 credit points:
- Year 1, Semester 1 (February to June)
- Year 1, Semester 2 (July to October)
- STAGE 2: Project over One Semester or Summer Program

Code	Title
STAGE 1: Students must complete units from the list below, totalling 96 credit points:	
Year 1, Semester 1 (February to June)	
LSN104	Advancing Anatomy and Physiology
PCN113	Radiation Physics
ENN515	Total Quality Management
PCN211	Physics of Medical Imaging
Year 1, Semester 2 (July to October)	
PCN112	Medical Imaging Science
PCN212	Radiotherapy
PCN214	Health and

	Occupational Physics
PCN218	Research Methodology and Professional Studies
STAGE 2: Project over One Semester or Summer Program	
PCN520	Project (FT)

Master of Project Management

Handbook

Year	2017
QUT code	PM20
CRICOS	084927B
Duration (full-time)	1.5 years
Campus	Gardens Point
Domestic fee (indicative)	2017: $20400 per year full-time (96 credit points)
International fee (indicative)	2017: $30600 per year full-time (96 credit points)
Total credit points	144
Credit points full-time sem.	48
Start months	February, July
Int. Start Months	February, July
Course Coordinator	Dr Madhav Nepal; ph: +61 7 3138 8822; email: sef.enquiry@qut.edu.au
Discipline Coordinator	

Domestic Entry requirements

Academic entry requirements

A completed recognised bachelor degree (or higher) in engineering or built environment; *or*

A completed recognised bachelor degree (or higher) in any discipline with at least 6 months (full-time or equivalent) professional project management work experience; *or*

Successful completion of QUT's Graduate Certificate in Project Management course.

International Entry requirements

Academic entry requirement

A completed recognised bachelor degree (or higher) in engineering or built environment disciplines; *or*

A completed recognised bachelor honours degree (or higher) in any discipline with at least six months (full-time or equivalent) professional project management work experience in any discipline. Students applying on the basis of work experience must submit a detailed CV including position details and employment statements; *or*

Successful completion of QUT's Graduate Certificate of Project Management course.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Overview

The QUT Master of Project Management is designed for Project Managers and project management cognate professionals from a wide range of industries; including engineering and the resources sector.

With this course you will gain the advanced discipline knowledge and skills to lead and project manage large and complex projects across multiple industry sectors.

Designed to offer flexible study choices, the course content is available in a variety of blended learning delivery modes including online, face to face on campus and block learning. See the Study Choices information below for more detail on how you can study this course.

Course Design

The MPM is designed around a set of core project management topics that underpin the knowledge required for the more advanced discipline units. The course will provide you with the critical skills to apply advanced knowledge of contemporary project management research and practice, and creatively solve complex project management problems. You will learn to communicate effectively within various social, cultural and professional contexts across and within stakeholder and discipline groups. You will demonstrate leadership, effective management and co-ordination of project teams and be able to work independently, ethically and collaboratively.

The course structure consists of 144 credit points (12 units) arranged as follows:

1) 48 credit points (4 units) of core project management units:

Two of these units should be completed in this order: PMN501 Project Management Essentials 1, in the first half of the semester, followed by PMN502 Project Management Essentials 2 in the second half of the semester.

2) 96 credit points (8 units) of core advanced discipline units:

Your skills and knowledge are developed through the advanced discipline and 'Project Investigation' units and further honed in PMN608 Managing the Project, the capstone unit. PMN608 should be taken in the last semester of study.

Study Choices

You can study PMN501, PMN502, PMN503 and PMN504 in the Master of Project Management internally on campus at Gardens Point or externally Online. When you self-enrol in a unit you must select from the list of attendance modes available that matches how you wish to study that unit. If you select the online study mode for a unit, your studies will all take place electronically, off campus. If you select to study a unit internally, you will be required to attend scheduled classes on campus.

Master of Project Management

Studying On Campus (Internally)
There are different ways you can study some project management units internally. You will be able to identify which type of internal study is offered when you self-enrol in a unit. If a unit is described as 'Internal' this typically indicates a standard delivery mode where classes will be scheduled each week for the duration of the specified teaching period. If a unit is described as Internal Block Mode, this indicates that it will be delivered in an intensive learning mode, such as whole day or weekend sessions or seminars. Please ensure you check your session dates.

Special Course Requirements
Students wishing to undertake units through online study will require the necessary technology to facilitate this mode of study.

Pathways to Further Study
The QUT Master of Project Management is located at Level 9 of the Australian Qualifications Framework (AQF). Graduates may be eligible for discipline relevant Doctoral level studies.

International Combined Masters Packages
Students admitted to a combined masters pathway (BN87 + PM20 or EN50 + PM20) may progress to their second degree on completion of the first, and are referred to the combined package study plan for their chosen combination, available on the course websites. Separate awards are granted for each degree completed.

Professional Membership
Endorsed by the Australian Institute of Project Management (AIPM).

Domestic Course structure
The Master of Project Management is designed around a set of core project management topics that underpin the knowledge required for the more advanced discipline units. The course will provide you with the critical skills to apply advanced knowlege of contemporary project management research and practice and creatively solve complex project management problems. You will learn to communicate effectively within various social, cultural and professional contexts across and within stakeholder and discipline groups. You will demonstrate leadership, effective management and coordination of project teams and be able to work independently,ethically and collaboratively.

The course structure consists of 144 credit points (12 units) arranged as follows:

1) 48 credit points (4 units) of core project management units

Two of these units should be completed in this order: PMN501 Project Management Essentials 1, in the first half of the semester, followed by PMN502 Project Management Essentials 2 in the second half of the semester.

2) 96 credit points (8 units) of core advanced discipline units

Your skills and knowledge are developed though the advanced discipline and Project Investigation units and further honed in PMN608 Managing the Project, the capstone unit. PMN608 should be taken in the last semester of study.

Special course requirements
Students wishing to undertake units through online study will require the necessary technology to facilitate this mode of study.

Pathways to further study
The QUT Master of Project Management is located at Level 9 of the Australian Qualifications Framework (AQF). Graduates may be eligible for discipline relevant doctoral level studies.

International Course structure
The Master of Project Management is designed around a set of core project management topics that underpin the knowledge required for the more advanced discipline units. The course will provide you with the critical skills to apply advanced knowlege of contemporary project management research and practice and creatively solve complex project management problems. You will learn to communicate effectively within various social, cultural and professional contexts across and within stakeholder and discipline groups. You will demonstrate leadership, effective management and coordination of project teams and be able to work independently, ethically and collaboratively.

The course structure consists of 144 credit points (12 units) arranged as follows:

1) 48 credit points (4 units) of core project management units:

Two of these units should be completed in this order: PMN501 Project Management Essentials 1, in the first half of the semester, followed by PMN502 Project Management Essentials 2 in the second half of the semester.

2) 96 credit points (8 units) of core advanced discipline units:

Your skills and knowledge are developed though the advanced discipline and 'Project Investigation' units and further honed in PMN608 Managing the Project, the capstone unit. PMN608 should be taken in the last semester of study.

Special course requirements
Students wishing to undertake units through online study will require the necessary technology to facilitate this mode of study.

Pathways to further study
The QUT Master of Project Management is located at Level 9 of the Australian Qualifications Framework (AQF). Graduates may be eligible for discipline relevant doctoral level studies.

Combined masters packages for international students
If you are admitted to either of:

- Master of Engineering and Master of Project Management package
- Master of Engineering Management and Master of Project Management package

you can progress to the second degree on completion of the first.

You will receive an award for each degree completed.

Refer to the combined package course structure of the relevant second year degree for unit details.

Sample Structure
Semesters

- Year 1, Semester 1
- Year 1, Semester 2
- Year 2, Semester 1

Code	Title
Year 1, Semester 1	
PMN501	Project Management Essentials 1
PMN502	Project Management Essentials 2
Core unit PMN501 is assumed knowledge for PMN502, and should be taken in the first half of the semester of study before attempting PMN502 in the	

second half of the semester	
PMN503	Systems in Project Management
PMN504	People and Projects
Year 1, Semester 2	
PMN601	Projects and Performance
PMN603	Project Investigation 1
PMN605	Strategic Project Procurement
PMN607	Strategic Risk Management
Year 2, Semester 1	
PMN602	Organisations and Projects
PMN604	Strategy and Projects
PMN606	Project Investigation 2
PMN608	Managing the Project
PMN608 is a captstone unit and should be taken in the last semester of study.	

Combined Masters Package: Master of Engineering Management (BN87) plus Master of Project Management (PM20)

If you are admitted to this pathway, once you successfully complete your Master of Engineering Management (BN87) you may progress to the Master of Project Management (PM20). **You will recieve 48 credit points (1 semester) of advanced standing in PM20** if you have successfully completed the following units in BN87: *ENN541 Research Methods for Engineers; ENN591-1 Project 1; ENN591-2 Project 2; ENN510 Engineering Knowlege Management; ENN530 Asset and Facilty Mangement; ENN570 Enterprise Resource Planning and BEN610 Project Management Principles.* Please follow the study plan for your combined package, and refer to the course site for further information regarding your second degree.

Combined Masters Package: Master of Engineering (EN50) plus Master of Project Management (PM20)

If you are admitted to this pathway, once you successfully complete your Master of Engineering (EN50) you may progress to the Master of Project Management (PM20). **You will receive 48 credit points (1 semester) of advanced standing in PM20** if you have successfully completed the following units in EN50: *ENN541 Research Methods for Engineers; ENN590-1 Project 1; ENN590-2 Project 2; ENN541 Research Methods for Engineers; ENN542 Statistical and Optimisation Methods for Engineers; and BEN610 Project Management Principles.* Please follow the study plan for your combined package, and refer to the course site for further information regarding your second degree.

Semesters

Code	Title
Year 1 & Year 2 Program	
In Year 1, undertake and complete either the BN87 program or the EN50 program below. In Year 2, progress to the PM20 program.	
Master of Engineering Management (BN87) Combined Masters Study Plan	
Year 1, Semester 1	
ENN510	Engineering Knowledge Management
ENN515	Total Quality Management
ENN541	Research Methods for Engineers
ENN590-1	Project 1
Year 1, Semester 2	
BEN610	Project Management Principles
ENN530	Asset and Facility Management
ENN570	Enterprise Resource Planning
ENN590-2	Project 2
Master of Engineering (EN50) Combined Masters Study Plan	
MECHANICAL ENGINEERING MAJOR	
Year 1, Semester 1	
ENN531	Advanced Materials and Engineering Applications
ENN533	Advanced Engineering Design and Maintenance
ENN541	Research Methods for Engineers
ENN590-1	Project 1
Year 1, Semester 2	
BEN610	Project Management Principles
(BEN610 must be selected from the Postgraduate Engineering Unit Options list.)	
ENN542	Statistical and Optimisation Methods for Engineers
ENN552	Solar Thermal Systems - Heat and Power
OR	
ENN553	Energy Optimised Buildings and Communities
[ENN552 offered in EVEN years. ENN553 offered in ODD years.]	
ENN590-2	Project 2
NETWORKING AND COMMUNICATION MAJOR	
Year 1, Semester 1	
ENN522	Advanced Communication Systems
ENN523	Advanced Network Engineering
ENN541	Research Methods for Engineers
ENN590-1	Project 1
Year 1, Semester 2	
BEN610	Project Management Principles
(BEN610 must be selected from the Postgraduate Engineering Unit Options list.)	
ENN524	Mobile Network Engineering
ENN542	Statistical and Optimisation Methods for Engineers
ENN590-2	Project 2
GENERAL (NO MAJOR)	
BEN610	Project Management Principles
(BEN610 must be selected from the Postgraduate Engineering and Elective Unit Options list.)	
ENN541	Research Methods for Engineers
ENN590-1	Project 1
Postgraduate Engineering Unit Option	
Year 1, Semester 2	
ENN542	Statistical and Optimisation Methods for Engineers
ENN590-2	Project 2
Postgraduate Engineering Unit Option	
Postgraduate Engineering Unit Option	
Master of Project Management (PM20) Combined Masters Study Plan	
Year 2, Semester 1	
PMN503	Systems in Project Management
PMN601	Projects and Performance
PMN602	Organisations and Projects
PMN604	Strategy and Projects
Year 2, Semester 2	
PMN605	Strategic Project Procurement
PMN606	Project Investigation 2
PMN607	Strategic Risk

Master of Project Management

	Management
PMN608	Managing the Project

Master of Applied Science (Research) - Engineering

Handbook

Year	2017
QUT code	BN71
CRICOS	007897G
Duration (full-time)	1 year
Duration (part-time domestic)	2 years
Campus	Gardens Point
Domestic fee (indicative)	2017: $29000 per year full-time if you exceed the maximum time under RTP
International fee (indicative)	2017: $32300 per year full-time (96 credit points)
Total credit points	
Int. Start Months	Entry is available at any time subject to approval
Course Coordinator	Prof Christine Bruce (APD)
Discipline Coordinator	Science and Engineering Faculty 3138 2595 sef.research@qut.edu.au

Domestic Entry requirements

Academic entry requirement

A completed recognised bachelor honours degree including a major relevant to the intended area of study; *or*

A completed recognised bachelor degree (or equivalent) including a major relevant to the intended area of study with a minimum grade point average (GPA) score of 5.0 (on QUT's 7 point scale) *and* relevant professional and/ or research experience as determined by Faculty.

Research proposals must be submitted with your application. Proposed research projects are subject to supervisor availability and resources available within the faculty to support the proposed research topic.

Application Guide

Applicants are asked to nominate a supervisor and topic when submitting a formal application. An application is likely to be more successful where a supervisor and topic are well matched.

Applicants should ensure that there is a genuine fit with the potential supervisor's research interests by looking at the interests of the researchers within the relevant school as described on the QUT Science and Engineering Faculty website. Applicants are encouraged to contact the postgraduate research enquiries team for assistance at (sef.research@qut.edu.au)

This contact should include a transcript of academic records, the topic area which you wish to study, the school in which you wish to undertake your research, and if known, the name of a potential supervisor. The HDR Admissions Officer may ask you for further information to assist with your enquiry. The information will be passed onto the nominated (or relevant) school or supervisor.

Faculty Research Contact

Email: sef.research@qut.edu.au

Telephone: +61 7 3138 4783

Level 4, O Podium
Gardens Point Campus, George St, QLD 4000

Application Submission

You can submit an online application or hardcopy using the PR Form. Hardcopy applications can be emailed to the QUT HDR Admissions Office at (research.enquiries@qut.edu.au).

Applications must include all supporting documentations including your detailed research proposal.

International Entry requirements

Academic entry requirement

A completed recognised bachelor honours degree including a major relevant to the intended area of study; *or*

A completed recognised bachelor degree (or equivalent) including a major relevant to the intended area of study with a minimum grade point average (GPA) score of 5.0 (on QUT's 7 point scale) *and* relevant professional and/ or research experience as determined by Faculty.

Research proposals must be submitted with your application. Proposed research projects are subject to supervisor availability and resources available within the faculty to support the proposed research topic.

Application Guide

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Faculty Research Contact

Email: sef.research@qut.edu.au

Telephone: +61 7 3138 4783

Level 4, O Podium
Gardens Point Campus, George St, QLD 4000

Application Submission

You can submit an application using the FR Form. Applications can be emailed to QUT Admissions (qut.intadmission@qut.edu.au). Applications must include all supporting documentations including your detailed research proposal.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Further Information

Science and Engineering Research, Phone: +61 7 3138 2595, Email: sef.research@qut.edu.au

Domestic Course structure

This degree consists of coursework, which can be up to one-third of the course, and research, which must be at least two-thirds of the course. The assessed coursework may be in the form of advanced lectures, seminars, reading courses or independent study designed to focus on information retrieval skills. The Faculty also recommends all students undertake a QUT facilitated Research Writing Program. The research component is a program of supervised research and investigation at a level of scientific competence significantly higher than that expected from an undergraduate degree and, typically, a masters thesis does not need to be as substantial as a Doctor of Philosophy thesis.

Students undertake a program of research and investigation on a topic approved by the Academic Board. All projects should be sponsored either by outside agencies such as industry, government authorities, or professional organisations, or by the university itself.

Getting Started:

Choose a topic:

Step 1: Identify your discipline and choose a topic

- Construction Management
- Quantity Surveying
- Property Economics
- Project Management
- Planning
- Surveying

Step 2: Contact the Science and Engineering Faculty's research degree coordinator.

QUT researchers are available to discuss your topic with you to ensure it has the right scope and scale for your preferred research degree. There are also opportunities for you to align your interests with QUT's major ongoing research programs. Explore research topics.

Find a supervisor

Connecting with a supervisor for your project is of vital importance. Finding a supervisor

International Course structure

This degree consists of coursework, which can be up to one-third of the course, and research, which must be at least two-thirds of the course. The assessed coursework may be in the form of advanced lectures, seminars, reading courses or independent study designed to focus on information retrieval skills. The Faculty also recommends all students undertake a QUT facilitated Research Writing Program. The research component is a program of supervised research and investigation at a level of scientific competence significantly higher than that expected from an undergraduate degree and, typically, a masters thesis does not need to be as substantial as a Doctor of Philosophy thesis.

Students undertake a program of research and investigation on a topic approved by the Academic Board. All projects should be sponsored either by outside agencies such as industry, government authorities, or professional organisations, or by the university itself.

Getting Started:

Choose a topic:

Step 1: Identify your discipline and choose a topic

- Construction Management
- Quantity Surveying
- Property Economics
- Project Management
- Planning
- Surveying

Step 2: Contact the Science and Engineering Faculty's research degree coordinator.

QUT researchers are available to discuss your topic with you to ensure it has the right scope and scale for your preferred research degree. There are also opportunities for you to align your interests with QUT's major ongoing research programs. Explore research topics.

Find a supervisor

Connecting with a supervisor for your project is of vital importance. Finding a supervisor

Master of Engineering (Research)

Handbook

Year	2017
QUT code	BN72
CRICOS	003465J
Duration (full-time)	1 year
Duration (part-time domestic)	2 years
Campus	Gardens Point
Domestic fee (indicative)	2017: $29200 per year full-time if you exceed the maximum time under RTP
International fee (indicative)	2017: $32500 per year full-time (96 credit points)
Total credit points	
Start months	January, February, March, April, May, June, July, August, September, October, November, December
Int. Start Months	January, February, March, April, May, June, July, August, September, October, November, December
Course Coordinator	Prof Christine Bruce (APD)
Discipline Coordinator	Science and Engineering Faculty 3138 2595 sef.research@qut.edu.au

Domestic Entry requirements

Academic entry requirement

A completed recognised bachelor honours degree including a major relevant to the intended area of study; *or*

A completed recognised four year bachelor degree (or equivalent) including a major relevant to the intended area of study with a minimum grade point average (GPA) score of 5.0 (on QUT's 7 point scale) *and* relevant professional and/ or research experience as determined by Faculty.

Research proposals must be submitted with your application. Proposed research projects are subject to supervisor availability and resources available within the faculty to support the proposed research topic.

Application Guide

Applicants are asked to nominate a supervisor and topic when submitting a formal application. An application is likely to be more successful where a supervisor and topic are well matched.

Applicants should ensure that there is a genuine fit with the potential supervisor's research interests by looking at the interests of the researchers within the relevant school as described on the QUT Science and Engineering Faculty website. Applicants are encouraged to contact the postgraduate research enquiries team for assistance at (sef.research@qut.edu.au)

This contact should include a transcript of academic records, the topic area which you wish to study, the school in which you wish to undertake your research, and if known, the name of a potential supervisor. The HDR Admissions Officer may ask you for further information to assist with your enquiry. The information will be passed onto the nominated (or relevant) school or supervisor.

Faculty Research Contact

Email: sef.research@qut.edu.au

Telephone: +61 7 3138 4783

Level 4, O Podium
Gardens Point Campus, George ST, QLD 4000

Application Submission

You can submit an online application or hardcopy using the PR Form. Hardcopy applications can be emailed to the QUT HDR Admissions Office at (research.enquiries@qut.edu.au). Applications must include all supporting documentations including your detailed research proposal.

International Entry requirements

Academic entry requirement

A completed recognised bachelor honours degree including a major relevant to the intended area of study; *or*

A completed recognised bachelor degree (or equivalent) including a major relevant to the intended area of study with a minimum grade point average (GPA) score of 5.0 (on QUT's 7 point scale) *and* relevant professional and/ or research experience as determined by Faculty.

Research proposals must be submitted with your application. Proposed research projects are subject to supervisor availability and resources available within the faculty to support the proposed research topic.

Application Guide

Applicants are asked to nominate a supervisor and topic when submitting a formal application. An application is likely to be more successful where a supervisor and topic are well matched.

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This contact should include a transcript of academic records, the topic area which you wish to study, the school in which you wish to undertake your research, and if known, the name of a potential supervisor. The HDR Admissions Officer may ask you for further information to assist with your enquiry. The information will be passed onto the nominated (or relevant) school or supervisor.

Faculty Research Contact

Email: sef.research@qut.edu.au

Telephone: +61 7 3138 4783

Level 4, O Podium
Gardens Point, George St, QLD 4000

Application Submission

You can submit an application using the FR Form. Applications can be emailed to QUT Admissions (gut.intadmission@qut.edu.au). Applications must include all supporting documentations including your detailed research proposal.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Information and Notes

Please consult notes for BN71 Master of Applied Science for course information and requirements.

Further Information

Science and Engineering Research, Phone: +61 7 3138 2595, Email: sef.research@qut.edu.au

Master of Philosophy

Handbook

Year	2017
QUT code	IF80
CRICOS	095410G
Duration (full-time)	2 years
Duration (part-time domestic)	4 years
Campus	Gardens Point, Kelvin Grove
Domestic fee (indicative)	2017: $21,800 - $29,200 per year full-time if you exceed the maximum time under RTP
International fee (indicative)	2017: $27,000 - $32,500 per year full-time
Total credit points	144
Start months	January, February, March, April, May, June, July, August, September, October, November, December
Int. Start Months	January, February, March, April, May, June, July, August, September, October, November, December
Course Coordinator	
Discipline Coordinator	

Domestic Entry requirements

To be eligible for this course, you need either:

- a completed recognised bachelor honours degree in a discipline relevant to your intended area of study or
- a completed recognised bachelor degree or equivalent in a discipline relevant to your intended area of study with: a minimum grade point average (GPA) score of 5.00 (on QUT's 7 point scale)relevant professional and/or research experience (as determined by the faculty).

Applications and proposed research projects are subject to supervisor availability and resources available within the faculty.

Applicants are asked to nominate a supervisor and topic when submitting a formal application. An application is likely to be more successful where a supervisor and topic are well matched.

Applicants should ensure that there is a genuine fit with the potential supervisor's research interests by looking at the interests of the researchers within the relevant school as described on our research areas website.

This contact should include a transcript of academic records, the topic area which you wish to study, the school in which you wish to undertake your research, and if known, the name of a potential supervisor.

International Entry requirements

To be eligible for this course, you need either:

- a completed recognised bachelor honours degree in a discipline relevant to your intended area of study or
- a completed recognised bachelor degree or equivalent in a discipline relevant to your intended area of study with: a minimum grade point average (GPA) score of 5.00 (on QUT's 7 point scale)relevant professional and/or research experience (as determined by the faculty).

Applications and proposed research projects are subject to supervisor availability and resources available within the faculty.

Applicants are asked to nominate a supervisor and topic when submitting a formal application. An application is likely to be more successful where a supervisor and topic are well matched.

Applicants should ensure that there is a genuine fit with the potential supervisor's research interests by looking at the interests of the researchers within the relevant school as described on our research areas website.

This contact should include a transcript of academic records, the topic area which you wish to study, the school in which you wish to undertake your research, and if known, the name of a potential supervisor.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Domestic Course structure

Mandatory units

You'll need to complete:

- a time-based thesis
- IFN001 Advanced Information Research Skills.

You may need to complete other units that are recommended by your faculty, negotiated with you and based on the skills gaps identified in your research degree skills audit.

Study areas

Your faculty may have several specialisations (study areas) that your research will align with. This will appear on your testamur at graduation:

Business

- Master of Philosophy (Accountancy)
- Master of Philosophy (Advertising)
- Master of Philosophy (Economics)
- Master of Philosophy (Entrepreneurship and Innovation)
- Master of Philosophy (Finance)
- Master of Philosophy (Human Resource Management)
- Master of Philosophy (International Business)
- Master of Philosophy (Management)

- Master of Philosophy (Marketing)
- Master of Philosophy (Philanthropy and Nonprofit Studies)
- Master of Philosophy (Public Relations)

Creative Industries

- Master of Philosophy (Design)
- Master of Philosophy (Communication)
- Master of Philosophy (Creative Practice)

Education

- Master of Philosophy (Education)

Health

- Master of Philosophy (Biomedical Sciences)
- Master of Philosophy (Exercise Sciences)
- Master of Philosophy (Nursing)
- Master of Philosophy (Nutrition and Dietetics)
- Master of Philosophy (Optometry)
- Master of Philosophy (Paramedicine)
- Master of Philosophy (Pharmacy)
- Master of Philosophy (Physical Education)
- Master of Philosophy (Podiatry)
- Master of Philosophy (Public Health)
- Master of Philosophy (Psychology)
- Master of Philosophy (Radiology)
- Master of Philosophy (Social Work)

Law

- Master of Philosophy (Law)
- Master of Philosophy (Justice)

Science and Engineering

- Master of Philosophy (Engineering)
- Master of Philosophy (Information Technology)
- Master of Philosophy (Mathematics)
- Master of Philosophy (Science)
- Master of Philosophy (Urban Development)

International Course structure

Mandatory units

You'll need to complete:

- a time-based thesis
- IFN001 Advanced Information Research Skills.

You may need to complete other units that are recommended by your faculty, negotiated with you and based on the skills gaps identified in your research degree skills audit.

Study areas

Your faculty may have several specialisations (study areas) that your research will align with. This will appear on your testamur at graduation:

Business

- Master of Philosophy (Accountancy)
- Master of Philosophy (Advertising)
- Master of Philosophy (Economics)
- Master of Philosophy (Entrepreneurship and Innovation)
- Master of Philosophy (Finance)
- Master of Philosophy (Human Resource Management)
- Master of Philosophy (International Business)
- Master of Philosophy (Management)
- Master of Philosophy (Marketing)
- Master of Philosophy (Philanthropy and Nonprofit Studies)
- Master of Philosophy (Public Relations)

Creative Industries

- Master of Philosophy (Design)
- Master of Philosophy (Communication)
- Master of Philosophy (Creative Practice)

Education

- Master of Philosophy (Education)

Health

- Master of Philosophy (Biomedical Sciences)
- Master of Philosophy (Exercise Sciences)
- Master of Philosophy (Nursing)
- Master of Philosophy (Nutrition and Dietetics)
- Master of Philosophy (Optometry)
- Master of Philosophy (Paramedicine)
- Master of Philosophy (Pharmacy)
- Master of Philosophy (Physical Education)
- Master of Philosophy (Podiatry)
- Master of Philosophy (Public Health)
- Master of Philosophy (Psychology)
- Master of Philosophy (Radiology)
- Master of Philosophy (Social Work)

Law

- Master of Philosophy (Law)
- Master of Philosophy (Justice)

Science and Engineering

- Master of Philosophy (Engineering)
- Master of Philosophy (Information Technology)
- Master of Philosophy (Mathematics)
- Master of Philosophy (Science)
- Master of Philosophy (Urban Development)

Master of Information Technology (Research)

Handbook

Year	2017
QUT code	IT60
CRICOS	020309B
Duration (full-time)	1.5 years
Duration (part-time domestic)	3 years
Campus	Gardens Point
Domestic fee (indicative)	2017: $23400 per year full-time if you exceed the maximum time under RTP
International fee (indicative)	2017: $27000 per year full-time (96 credit points)
Total credit points	144
Start months	At any time
Int. Start Months	Entry is available at any time subject to approval
Course Coordinator	Professor Richi Nayak. Enquiries to sef.research@qut.edu.au or 07 3138 2595.
Discipline Coordinator	Science and Engineering Faculty 3138 2595 sef.research@qut.edu.au

Domestic Entry requirements

Academic entry requirements

A completed recognised bachelor honours degree including a major relevant to the intended area of study; *or*

A completed recognised four year bachelor degree (or equivalent) including a major relevant to the intended area of study with a minimum grade point average (GPA) score of 5.0 (on QUT's 7 point scale) *and* relevant professional and/ or research experience as determined by Faculty.

Research proposals must be submitted with your application. Proposed research projects are subject to supervisor availability and resources available within the faculty to support the proposed research topic.

Application guide

Applicants are asked to nominate a supervisor and topic when submitting a formal application. An application is likely to be more successful where a supervisor and topic are well matched.

Applicants should ensure that there is a genuine fit with the potential supervisor's research interests by looking at the interests of the researchers within the relevant school as described on the QUT Science and Engineering Faculty website. Applicants are encouraged to contact the postgraduate research enquiries team for assistance at (sef.research@qut.edu.au)

This contact should include a transcript of academic records, the topic area which you wish to study, the school in which you wish to undertake your research, and if known, the name of a potential supervisor. The HDR Admissions Officer may ask you for further information to assist with your enquiry. The information will be passed onto the nominated (or relevant) school or supervisor.

Faculty research contact

Email: sef.research@qut.edu.au

Telephone: +61 7 3138 4783

Level 4, O Podium
Gardens Point Campus, George St, QLD 4000

Application submission

You can submit an online application or hardcopy using the PR Form. Hardcopy applications can be emailed to the QUT HDR Admissions Office at (research.enquiries@qut.edu.au). Applications must include all supporting documentations including your detailed research proposal.

International Entry requirements

Academic entry requirements

A completed recognised bachelor honours degree including a major relevant to the intended area of study; *or*

A completed recognised bachelor degree (or equivalent) including a major relevant to the intended area of study with a minimum grade point average (GPA) score of 5.0 (on QUT's 7 point scale) *and* relevant professional and/ or research experience as determined by Faculty.

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Faculty research contact

Email: sef.research@qut.edu.au

Telephone: +61 7 3138 4783

Level 4, O Podium
Gardens Point Campus, George St, QLD 4000

Master of Information Technology (Research)

Application submission

You can submit an application using the FR Form. Applications can be emailed to QUT Admissions (qut.intadmission@qut.edu.au). Applications must include all supporting documentations including your detailed research proposal.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Research Areas

Areas of research interest and contact details can be obtained from the Faculty website

Course Structure

Students entering the degree with second-class honours division A (or better) in an IT-related course will often complete the degree in one year full-time. The length of the program is generally expected to be 18 months full-time (including six months of provisional registration) or three years part-time (including one year of provisional registration).

Assessment for this research masters is based on a program of supervised research and investigation, culminating in a thesis.

Programs may include some coursework in support of the conduct of research and preparation of a thesis. Candidates are required to have regular, face-to-face interaction with supervisors and to participate in University scholarly activities such as research seminars, teaching and publication.

Further Information

Science and Engineering Research, Phone: +61 7 3138 2595, Email: sef.research@qut.edu.au

Domestic Course structure

Students entering the degree with second-class honours division A (or better) in an IT-related course will often complete the degree in one year full-time. The length of the program is generally expected to be 18 months full-time (including six months of provisional registration) or three years part-time (including one year of provisional registration).

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Programs may include some coursework in support of the conduct of research and preparation of a thesis. Candidates are required to have regular, face-to-face interaction with supervisors and to participate in university scholarly activities such as research seminars, teaching and publication.

Getting started

Choose a topic

Step 1: Identify your research area:

- Chemistry, physics and mechanical engineering
- Civil engineering and the built environment
- Earth, environmental and biological sciences
- Electrical engineering and computer science
- Information systems
- Mathematical sciences

Step 2 Choose a theme from:

- Food
- Energy
- Health
- Environment
- Security
- Information

Step 3 Contact Science and Engineering's research degree coordinator.

QUT researchers are available to discuss your topic with you to ensure it has the right scope and scale for your preferred research degree. There are also opportunities for you to align your interests with QUT's major ongoing research programs. Explore research topics

Find a supervisor

Connecting with a supervisor for your project is of vital importance. Finding a supervisor

International Course structure

Students entering the degree with second-class honours division A (or better) in an IT-related course will often complete the degree in one year full-time. The length of the program is generally expected to be 18 months full-time (including six months of provisional registration) or three years part-time (including one year of provisional registration).

Assessment for this research masters is based on a program of supervised research and investigation, culminating in a thesis.

Programs may include some coursework in support of the conduct of research and preparation of a thesis. Candidates are required to have regular, face-to-face interaction with supervisors and to participate in University scholarly activities such as research seminars, teaching and publication.

Sample Structure

Code	Title
Full-time Course Structure	
A program of research and investigation developed in conjunction with the Principal	
Supervisor and approved by the Faculty Research Committee (Workload equivalent to 48 credit points per semester)	
Part-time Course Structure	
A program of research and investigation developed in conjunction with the Principal	
Supervisor and approved by the Faculty Research Committee (Workload equivalent to 24 credit points per semester)	

Master of Applied Science (Research) - Science, Maths and IT

Handbook

Year	2017
QUT code	SC80
CRICOS	007897G
Duration (full-time)	2 years
Duration (part-time domestic)	4 years
Campus	Gardens Point
Domestic fee (indicative)	2017: $28100 per year full-time if you exceed the maximum time under RTP
International fee (indicative)	2017: $31700 per year full-time (96 credit points)
Total credit points	144
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	January, February, March, April, May, June, July, August, September, October, November, December
Int. Start Months	January, February, March, April, May, June, July, August, September, October, November, December
Course Coordinator	Prof Christine Bruce (APD)
Discipline Coordinator	Science and Engineering Faculty 3138 2595 sef.research@qut.edu.au

Domestic Entry requirements

Academic entry requirements

- A completed recognised bachelor honours degree including a major relevant to the intended area of study; *or*
- A completed recognised bachelor degree (or equivalent) including a major relevant to the intended area of study with a minimum grade point average (GPA) score of 5.0 (on QUT's 7 point scale) *and* relevant professional and/ or research experience as determined by Faculty.

Research proposals must be submitted with your application. Proposed research projects are subject to supervisor availability and resources available within the faculty to support the proposed research topic.

Application Guide

Applicants are asked to nominate a supervisor and topic when submitting a formal application. An application is likely to be more successful where a supervisor and topic are well matched.

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Faculty Research Contact

Email: sef.research@qut.edu.au

Telephone: +61 7 3138 4783

Level 4, O Podium
Gardens Point Campus, George St, QLD 4000

Application Submission

You can submit an online application or hardcopy using the PR Form. Hardcopy applications can be emailed to the QUT HDR Admissions Office at (research.enquiries@qut.edu.au). Applications must include all supporting documentations including your detailed research proposal.

International Entry requirements

Academic entry requirements

- A completed recognised bachelor honours degree including a major relevant to the intended area of study; *or*
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Faculty Research Contact

Email: sef.research@qut.edu.au

Telephone: +61 7 3138 4783

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Application Submission

You can submit an application using the FR Form. Applications can be emailed to QUT Admissions (qut.intadmission@qut.edu.au). Applications must include all supporting documentations including your detailed research proposal.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Design

This degree consists of coursework that can comprise up to one-third of the course and research, which must be at least two-thirds of the course. The assessed coursework may be in the form of advanced lectures, seminars, reading courses or independent study designed to focus on information retrieval skills. The research component is a program of supervised research and investigation at a level of scientific competence significantly higher than that expected from an undergraduate degree and, typically, a masters thesis does not need to be as substantial as a Doctor of Philosophy thesis.

Students undertake a program of research and investigation on a topic approved by the Academic Board. All projects should be sponsored either by outside agencies such as industry, government authorities, or professional organisations, or by the University itself.

Students entering the course with an honours degree or equivalent substantial relevant work experience normally gain exemptions to a maximum of 96 credit points at the discretion of the Academic Board on the recommendation of the Head of School.

Students entering the course with a graduate diploma may gain exemption to a maximum of 96 credit points at the discretion of the Academic Board on the recommendation of the Head of School.

A full-time candidate who does not hold an honours degree appropriate to the course of study will normally be required to complete both course and research work, including submission of the thesis for examination during a period of registration of 24 months. The corresponding period in the case of a part-time candidate shall be 48 months. In special cases the Academic Board may approve a shorter period.

A holder of an honours degree or its equivalent appropriate to the course of study may submit the thesis for examination after not less than 12 months of registration if a full-time student, or 24 months if a part-time student. In special cases the Academic Board may approve a shorter period.

Overview

The objectives of this course are to:

Sample Structure

Code	Title
Unit List	
PCN701	Topics in Advanced Chemistry 1
PCN801	Topics in Advanced Chemistry 2

Code	Title
Unit List	
Essential units:	
NRN100	Readings in Natural Resource Sciences 1
NRN102	Confirmation of Candidature Seminar
NRN103	Final Seminar
Select up to one of the following units if required:	
NRN101	Readings in Natural Resource Sciences 2
NRN104	Advanced Topics in Natural Resource Sciences 1
NRN105	Advanced Topics in Natural Resource Sciences 2

Code	Title
Course Notes	
Selections from other School programs, such as MA75 Graduate Diploma in Mathematical Science and MA85 Master of Mathematical Science, to a maximum of 60 credit points	

Doctor of Philosophy

Handbook

Year	2017
QUT code	IF49
CRICOS	006367J
Duration (full-time domestic)	3 - 4 years
Duration (full-time international)	4 years
Campus	Kelvin Grove
Domestic fee (indicative)	2017: $23800 - $29600 per year full-time if you exceed the maximum time under RTP
International fee (indicative)	2017: $27000 - $32800 per year (full-time)
Total credit points	
Credit points full-time sem.	48
Credit points part-time sem.	24

Minimum English requirements

Students must meet the English proficiency requirements.

Doctor of Philosophy (Hosted by Science & Engineering Faculty)

Handbook

Year	2017
QUT code	IF49
CRICOS	006367J
Duration (full-time domestic)	3 - 4 years
Duration (full-time international)	4 years
Campus	Gardens Point
Domestic fee (indicative)	2017: $23800 - $29600 per year full-time if you exceed the maximum time under RTP
International fee (indicative)	2017: $27000 - $32800 per year (full-time)
Total credit points	
Credit points full-time sem.	48
Credit points part-time sem.	24
Start months	January, February, March, April, May, June, July, August, September, October, November, December
Int. Start Months	January, February, March, April, May, June, July, August, September, October, November, December
Discipline Coordinator	Science and Engineering Faculty 3138 2595 sef.research@qut.edu.au

Domestic Entry requirements

Academic entry requirements

- A completed recognised relevant First Class or Second Class Division A Honours degree or equivalent; *or*
- A completed recognised masters degree or professional doctorate (by research or coursework)

Masters and professional doctorate degrees by coursework must have a significant research component, normally not less than 25%. Holders of masters and professional doctorate by coursework must:

- have a minimum grade point average (GPA) score of 5.0 on QUT's 7 point scale; *and*
- present evidence of research experience and potential for approval

Admission to the Doctor of Philosophy depends on an applicant's demonstrated research aptitude and the availability of supervision, infrastructure and resources needed for the proposed research project.

Once you've started your PhD, you'll need to complete your Stage 2 milestone to be fully admitted to your course. You'll usually complete this milestone within the first three months of study.

International Entry requirements

Academic entry requirements

- A completed recognised relevant First Class or Second Class Division A Honours degree or equivalent; *or*
- A completed recognised masters degree or professional doctorate (by research or coursework)

Masters and professional doctorate degrees by coursework must have a significant research component, normally not less than 25%. Holders of masters and professional doctorate by coursework must:

- have a minimum grade point average (GPA) score of 5.0 on QUT's 7 point scale; *and*
- present evidence of research experience and potential for approval

Admission to the Doctor of Philosophy depends on an applicant's demonstrated research aptitude and the availability of supervision, infrastructure and resources needed for the proposed research project.

Once you've started your PhD, you'll need to complete your Stage 2 milestone to be fully admitted to your course. You'll usually complete this milestone within the first three months of study.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Overview

The Doctor of Philosophy (PhD) offers the opportunity to work with an experienced supervisory research team to make a significant and original contribution to disciplinary knowledge. A PhD candidate's research must reveal high critical ability and powers of imagination and synthesis and may be, depending on discipline, demonstrated in the form of new knowledge or significant and original adaptation, application and interpretation of existing knowledge. This world-class program provides a basis for critical inquiry and welcomes collaborative and interdisciplinary research projects. A QUT PhD graduate will be equipped to seek employment in industry, research organisations and universities.

Entry requirements

Admission to the Doctor of Philosophy depends on an applicant's demonstrated research aptitude and the availability of supervision, infrastructure and resources needed for the proposed research project.

An applicant would normally hold:
. a relevant first or second class division A honours degree or equivalent, or
. an appropriate Masters degree or Professional Doctorate (by research or coursework)

Masters and Professional Doctorates degrees by coursework must contain a significant research component, normally no less than 25%.

Holders of Masters and Professional Doctoral by Coursework must:
• have a grade point average of at least 5.0 on a 7 point scale and
• present evidence of research experience and potential for approval

International Student Entry

Admission to the Doctor of Philosophy depends on an applicant's demonstrated research aptitude and the availability of supervision, infrastructure and resources needed for the proposed research project.

An applicant would normally hold:
. a relevant first or second class division A honours degree or equivalent, or
. an appropriate Masters degree or Professional Doctorate (by research or coursework)

Masters and Professional Doctorates degrees by coursework must contain a significant research component, normally no less than 25%.

Holders of Masters and Professional Doctoral by Coursework must:
• have a grade point average of at least 5.0 on a 7 point scale and
• present evidence of research experience and potential for approval

English language proficiency requires International applicants to meet an IELTS overall bandscore of 6.5 with no sub-score below 6.0.

FINANCIAL GUARANTEE
Acceptable forms of evidence include:
- A letter from an approved employer confirming the continuation of your salary; OR
- A signed Scholarship Agreement between QUT and your sponsoring agency; OR
- An accepted letter of offer from QUT for a postgraduate research scholarship; OR
- An approved external scholarship.

Location & duration

The expected duration of the Doctor of Philosophy is three to four years full-time, or six to eight years part-time. Full-time study is normally conducted on-campus at QUT. Part-time and external study options may be available depending on the project, infrastructure requirements and funding arrangements. Although QUT offers this flexibility, candidates must meet minimum attendance requirements and the university must be satisfied that adequate supervision and resources are available.

International student visas require on-campus study to be completed full-time.

Course Structure

QUT adopts a project management approach. PhD candidates work closely with their supervisory team to meet collegially reviewed milestones leading to timely submission of a thesis for examination. QUT is proud of its record of timely completions and low attrition rates realised by this approach.

During candidature the supervisor and other key stakeholders will provide advice and direction to the candidate to encourage their participation in university scholarly activities such as research seminars, teaching and publication. The length of the thesis varies according to the topic, but should normally be no longer than 100,000 words, excluding bibliography.

Fees

Australian citizens and permanent residents will be awarded a Research Training Scheme (RTS) place. Domestic students are not required to apply for an RTS entitlement, as it will be automatically allocated. The RTS covers tuition fees but not other study related costs. PhD Students are entitled to four years full-time equivalent study under these schemes. Students who exceed this entitlement may apply to QUT for extension, however the University may charge fees for the period of the program, which exceeds the student's entitlement. The University determines the fee level for domestic and international students.

Further Information

For further information about this course, please contact:
Research Students Centre
Phone: +61 7 3138 4475, Email: research.enrolment@qut.edu.au

Science and Engineering Faculty
Professor Chris Langton
Assistant Dean - Research
Phone: +61 7 3138 2595
Email: sef.research@qut.edu.au

Domestic Course structure

Course design

Mandatory

- IFN001 Advanced Information Retrieval Skills
- Time based Thesis

Other units as agreed by student in negotiation with their supervisor and faculty.

International Course structure

Course design

Mandatory

- IFN001 Advanced Information Retrieval Skills
- Time based Thesis

Other units as agreed by student in negotiation with their supervisor and faculty.

Doctor of Information Technology

Handbook

Year	2017
QUT code	IT81
CRICOS	063035A
Duration (full-time)	3 years
Duration (part-time domestic)	6 years
Campus	Gardens Point
Domestic fee (indicative)	2017: $23900 per year full-time if you exceed the maximum time under RTP
International fee (indicative)	2017: $27000 per year full-time (96 credit points)
Total credit points	288
Start months	February, July, November
Int. Start Months	February, July, November
Course Coordinator	Associate Professor Richi Nayak; email: sef.research@qut.edu.au; ph: 3138 2595
Discipline Coordinator	

Domestic Entry requirements

Academic entry requirements

Applicants must have industry experience in a field relevant to the professional doctorate and possess one of the following:

- a four-year degree or its equivalent with First Class or Second Class Honours Division A; or
- a masters degree; or
- a three-year bachelor degree and relevant industry experience; or
- an equivalent combination of relevant experience and/or education and training.

Students with exemplary professional practice and who do not meet one of the above criteria may still be eligible to apply and should consult QUT's Science and Engineering Faculty.

Before submitting an application for enrolment, potential candidates should consult the course coordinator for assistance with preparation of the appropriate application form concerning eligibility and special interests.

International Entry requirements

Academic entry requirements

Applicants must have industry experience in a field relevant to the professional doctorate and possess one of the following:

- a four-year degree or its equivalent with First Class or Second Class Honours Division A; or
- a masters degree; or
- a three-year bachelor degree and relevant industry experience; or
- an equivalent combination of relevant experience and/or education and training.

Students with exemplary professional practice and who do not meet one of the above criteria may still be eligible to apply and should consult QUT's Science and Engineering Faculty.

Before submitting an application for enrolment, potential candidates should consult the course coordinator for assistance with preparation of the appropriate application form concerning eligibility and special interests.

Minimum English requirements

Students must meet the English proficiency requirements.

IELTS (International English Language Testing System)	
Speaking	6.0
Writing	6.0
Reading	6.0
Listening	6.0
Overall	6.5

Course Structure

The degree consists of 288 credit points of which up to 96 credit points are coursework, and the balance is research. Students are expected to develop a high level of research skill and analysis and make an original contribution to knowledge and professional practice. The Doctor of Information Technology will provide focused research and coursework studies in the IT's research areas.

Research Area

Areas of research interest and contact details can be obtained from the Faculty website.

Further Information

For further information about this course, please contact:

Associate Professor Richi Nayak
Phone: +61 7 3138 2595
Email: sef.research@qut.edu.au

Domestic Course structure

The degree consists of 288 credit points— up to 96 credit points of coursework, and the balance is research. Students are expected to develop a high level of research skill and analysis and make an original contribution to knowledge and professional practice. The Doctor of Information Technology will provide focused research and coursework studies in the IT's research areas.

International Course structure

The degree consists of 288 credit points of which up to 96 credit points are coursework, and the balance is research. Students are expected to develop a high level of research skill and analysis and make an original contribution to knowledge and professional practice. The Doctor of Information Technology will provide focused research and coursework studies in the IT's research areas.

Sample Structure

Semesters

Code	Title
Notes	
This is an indicative course structure only. Students should discuss their program with the Course Coordinator.	
Year 1, Semester 1	
PG coursework elective unit	
PG coursework elective unit	
PG coursework elective unit	
IFN665	Advanced Topic 1
Allows you an opportunity to extend your knowledge in related fields, improve your understanding of project management, develop venture capital, leadership competencies or to lead research groups.	
Coursework should normally be completed within the first year, subject to unit availability. Variations to this would be made in consultation with your supervisory team.	
Year 1, Semester 2	
INN700	Introduction to Research
A literature review of the related theory.	
IFN701	Project 1
A literature review of the relevant reseach methods and approaches that may be of use.	
INN701	Advanced Research Topics
A pilot study of the selected theory and method to a subset of the problem in order to test the efficacy of the methods and theories selected.	
Students construct an integrated research proposal.	
Year 2 to Year 3	
Computer Science	
IFT821	Thesis
Information Systems	
IFT822	Thesis

Second Major: Criminology and Policing

Handbook

Year	2017
QUT code	Uniwide
Total credit points	72
Discipline Coordinator	3138 2707 lawandjustice@qut.edu.au

Minimum English requirements

Students must meet the English proficiency requirements.

Second Major: Creative Industries

Handbook

Year	2017
QUT code	Uniwide
Total credit points	96
Discipline Coordinator	Phone: +61 7 3138 8114 Email: ci@qut.edu.au

Minimum English requirements

Students must meet the English proficiency requirements.

Second Major: Design

Handbook

Year	2017
QUT code	Uniwide
Total credit points	96
Discipline Coordinator	Phone: +61 7 3138 8114 Email: ci@qut.edu.au

Minimum English requirements

Students must meet the English proficiency requirements.

Second Major: Languages

Handbook

Year	2017
QUT code	Uniwide
Total credit points	72
Discipline Coordinator	07 3138 2050 qut.languages@qut.edu.au

Minimum English requirements

Students must meet the English proficiency requirements.

Second Major: Policy and Governance

Handbook

Year	2017
QUT code	Uniwide
Total credit points	72 or 96
Discipline Coordinator	3138 2707 lawandjustice@qut.edu.au

Minimum English requirements

Students must meet the English proficiency requirements.

Second Major: Property Economics

Handbook

Year	2017
QUT code	Uniwide
Total credit points	96
Discipline Coordinator	07 3138 8822 sef.enquiry@qut.edu.au

Minimum English requirements

Students must meet the English proficiency requirements.

Second Major: Technology Innovation and Design

Handbook

Year	2017
QUT code	Uniwide
Total credit points	96
Discipline Coordinator	07 3138 8822 , sef.enquiry@qut.edu.au sef.enquiry@qut.edu.au

Minimum English requirements

Students must meet the English proficiency requirements.

Second Major: Urban Development

Handbook

Year	2017
QUT code	Uniwide
Total credit points	96
Discipline Coordinator	07 3138 8822 sef.enquiry@qut.edu.au

Minimum English requirements

Students must meet the English proficiency requirements.