

Academic Program Rules

Faculty of Engineering, Computer and Mathematical Sciences

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⁺ There will be no further intake into these programs.

* The Academic Program Rules for these shared programs are listed in the Health Sciences section of this calendar.

Postgraduate Awards

- Graduate Certificate in Business Enterprise (SME)
- Graduate Certificate in Computer Science
- Graduate Certificate in Innovation and Entrepreneurship
- Graduate Certificate in Marine Engineering
- Graduate Certificate in Mathematical Signal and Information Processing
- Graduate Certificate in Project Management
- Graduate Certificate in Science and Technology Commercialisation
- Graduate Certificate in Sciences (Defence)
- Graduate Certificate in Sciences (Defence Signal Information Processing)
- Graduate Certificate in Social Entrepreneurship and Innovation
- Graduate Certificate in Water Resources Management
- Graduate Diploma in Applied Statistics
- Graduate Diploma in Computer Science
- Graduate Diploma in Innovation and Entrepreneurship
- Graduate Diploma in Marine Engineering
- Graduate Diploma in Mathematical Science
- Graduate Diploma in Science and Technology Commercialisation
- Graduate Diploma in Sciences (Defence)
- Graduate Diploma in Sciences (Defence Signal Information Processing)
- Graduate Diploma in Water Resources Management
- Master of Applied Science
- Master of Applied Innovation and Entrepreneurship
- Master of Applied Innovation and Entrepreneurship (Advanced)
- Master of Applied Project Management
- Master of Applied Project Management (Advanced)
- Master of Computer Science
- Master of Computing and Innovation
- Master of Engineering in Chemical Engineering
- Master of Engineering in Civil and Environmental Engineering
- Master of Engineering in Civil and Structural Engineering
- Master of Engineering in Electrical & Electronic Engineering
- Master of Engineering in Engineering Mathematics
- Master of Engineering in Mechanical Engineering
- Master of Engineering in Mechatronic Engineering
- Master of Engineering (Advanced) in Chemical Engineering – Energy and Combustion
- Master of Engineering (Advanced) in Chemical Engineering – Environmental and Sustainability
- Master of Engineering (Advanced) in Chemical Engineering – Food and BioProcessing
- Master of Engineering (Advanced) in Civil and Environmental Engineering
- Master of Engineering (Advanced) in Civil and Structural Engineering
- Master of Engineering (Advanced) in Mechanical Engineering
- Master of Engineering (Advanced) in Mechatronic Engineering
- Master of Engineering (Advanced) in Sensor Systems Signal processing

- Master of Engineering (Advanced) in Telecommunications
- Master of Engineering Science
- Master of Innovation and Entrepreneurship
- Master of Geostatistics
- Master of Information Technology
- Master of Marine Engineering
- Master of Mathematical Science
- Master of Mathematical Sciences (Signal and Information Processing)
- Master of Petroleum Business Management
- Master of Petroleum Engineering
- Master of Project Management
- Master of Science and Technology Commercialisation
- Master of Science and Technology Commercialisation (Advanced)
- Master of Science in Mathematical and Computer Sciences
- Master of Sciences (Defence)
- Master of Sciences (Defence Signal Information Processing)
- Master of Software Engineering
- Master of Water Resources Management

Notes on Delegated Authority

1. Council has delegated the power to approve minor changes to the Academic Program Rules to the Executive Deans of Faculties.
2. Council has delegated the power to specify syllabuses to the Head of each department or centre concerned, such syllabuses to be subject to approval by the Faculty or by the Executive Dean on behalf of the Faculty.

Graduate Attributes

Entrepreneurship, Commercialisation & Innovation Centre (ECIC)

- Knowledge and understanding of the content and techniques of a chosen discipline at advanced levels that are internationally recognised
- The ability to locate, analyse, evaluate and synthesise information from a wide variety of sources in a planned and timely manner
- An ability to apply effective, creative and innovative solutions, both independently and cooperatively, to current and future problems
- Skills of a high order in interpersonal understanding, teamwork and communication
- A proficiency in the appropriate use of contemporary technologies
- A commitment to continuous learning and the capacity to maintain intellectual curiosity throughout life
- A commitment to the highest standards of professional endeavour and the ability to take a leadership role in the community
- An awareness of ethical, social and cultural issues and their importance in the exercise of professional skills and responsibilities.



Professional Certificate in Applied Statistics

Note: There will be no further intake into this program.

1 Duration of program

The program for the Professional Certificate shall be completed in two semesters.

2 Admission

2.1 An applicant for admission to the program for the Professional Certificate in Applied Statistics shall have qualified for a degree of the University or another institution accepted by the University for the purpose as equivalent, or shall have had at least 3 years approved statistical work experience, and shall have demonstrated to the satisfaction of the University to have the capacity and experience to benefit from the program.

2.2 The Faculty may, subject to any conditions as it may see fit to impose in each case, accept as a candidate for the Professional Certificate a person who does not satisfy the requirements of Rule 2.1 above but who has presented evidence satisfactory to the Faculty of fitness to undertake work for the Professional Certificate.

2.3 Status, exemption and credit transfer

With the permission of the Faculty, status may be granted for courses, on written application from the candidate.

2.4 Articulation with other awards

A candidate who has been admitted to the Professional Certificate in Applied Statistics and who subsequently satisfies the requirements for the Graduate Diploma in Statistics must surrender the Professional Certificate before being admitted to the Graduate Diploma.

3 Assessment and examinations

3.1 There shall be four classifications of pass in any course for the Professional Certificate: Pass with High Distinction; Pass with Distinction; Pass with Credit; and Pass

- 3.2
- a A candidate shall not be eligible to be assessed, by examination or otherwise, unless the prescribed work has been completed to the satisfaction of the teaching staff concerned.
 - b For the purpose of this Rule, a candidate who is refused permission to sit for the examination shall be deemed to have failed the examination.

4 Qualification requirements

4.1 Academic program

To qualify for the Professional Certificate, a candidate shall satisfactorily complete three courses, as listed below and a project.

STATS 5000 Descriptive Statistics and Probability	2
STATS 5001 Statistical Inference and Regression.....	2
STATS 5002 Time Series and Survey Sampling Methods	2
STATS 5003 A/B Project.....	1

4.2 No candidate will be permitted to count for the Professional Certificate any course that, in the opinion of the Faculty, contains substantially the same material as any other course that he or she has already presented for another award.

4.3 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Graduate Certificate in Business Enterprise (SME)

Note: There will be no intake into this program in 2009.

1 Duration of program

To qualify for the Graduate Certificate a candidate shall satisfactorily complete a program of full-time study extending over at least six months or part-time study extending over at least one year. Except with the permission of the Faculty, the work for the Graduate Certificate shall be completed within two years.

2 Admission

- 2.1 Except as provided for in 2.2 below, a candidate for admission to the program of study for the Graduate Certificate shall have qualified for admission to a degree of the University or for a degree of another institution accepted for the purpose by the Faculty.
- 2.2 The Faculty may, in special cases and subject to such conditions (if any) as it may see fit to impose in each case, accept as a candidate for the degree a person who does not qualify for admission to the program under 2.1 above but has given evidence satisfactory to the Faculty of fitness to undertake work for the degree.
- 2.3 **Status, exemption and credit transfer**
Except with the special permission of the Faculty, no candidate will be granted status for any course that he or she has presented for another award. Such status as may be awarded in exceptional circumstances will only be awarded for graduate level studies.
- 2.4 **Articulation with other awards**
A candidate for the Master of Innovation and Entrepreneurship who does not complete the requirements for the Masters degree but satisfies the requirements for the Graduate Certificate may be admitted to the Graduate Certificate in Business Enterprise (SME).

3 Assessment and examinations

- 3.1 There shall be four classifications of pass in each course for the Graduate Certificate: Pass with High Distinction, Pass with Distinction, Pass with Credit and Pass.
- 3.2 A candidate shall not be eligible to attend for examination unless the prescribed work has been completed to the satisfaction of the teaching staff concerned.
- 3.3 A candidate who fails to pass in a course and desires to take the course again shall again undertake study and satisfactorily do such written and practical work as the teaching staff concerned

may prescribe, unless specifically exempted therefrom after written application to the Faculty for such exemption.

- 3.4 A candidate who has twice failed the examination in any course or division of a course may not enrol for the course again except by special permission of the Faculty and then only under such conditions as may be prescribed.
- 3.5 For the purpose of this Rule, a candidate who is refused permission to sit for examination, or who fails to attend all or part of a final examination (or supplementary examination if granted) after being enrolled for at least two thirds of the normal period during which the course is taught, shall be deemed to have failed the examination.

4 Qualification requirements

4.1 Academic program

To qualify for the Graduate Certificate in Business Enterprise (SME), a candidate shall satisfactorily complete courses to the value of 12 units as given below:

- TECHCOMM 5005 Financing Commercialisation ..3
TECHCOMM 5018 Opportunity Assessment3
TECHCOMM 5019 New Enterprise Marketing3
TECHCOMM 5020 New Enterprise Operations....3

4.2 Unacceptable combination of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.3 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Graduate Certificate in Computer Science

1 Duration of program

Except with the permission of the Faculty, the Graduate Certificate in Computer Science shall be completed in a minimum of one semester or a maximum of four semesters.

2 Admission

- 2.1 Except as provided in 2.2 below, an applicant for admission to the program for the Graduate Certificate shall have qualified for a degree of the University or a degree of another institution accepted by the Faculty for the purpose as equivalent to a degree of this University.
- 2.2 Subject to the approval of the Council, the Faculty may, in special cases and subject to such conditions (if any) as it may see fit to impose in each case, accept as a candidate for the Graduate Certificate a person who does not hold a degree of a tertiary institution but has given evidence satisfactory to the Faculty of fitness to undertake work for the Graduate Certificate.
- 2.3 A knowledge of SACE Stage 2 Mathematical Studies or its equivalent is assumed.
- 2.4 A person who holds any of the following qualifications shall not be eligible for the award of the Graduate Certificate in Computer Science: a degree that includes a major in Computer Science or its equivalent; the Diploma in Computer Science, Master of Computer Science of the University of Adelaide, or equivalent qualifications in Computer Science.

2.5 Credit transfer

- 2.5.1 A candidate who has passed courses in this or other educational institutions and who has not presented these courses towards an award may, on written application, be granted such exemption from the requirements of these rules as the Faculty shall determine. Status may be granted for a maximum of 3 units under 4.1 of the Academic Program Rules.
- 2.5.2 No candidate will be permitted to count for the Graduate Certificate any course that in the opinion of the School contains substantially the same material as any other course which he or she has presented already for another qualification.

3 Assessment and examination

- 3.1 There shall be four classifications of pass at an examination in any course for the Graduate Certificate: Pass with High Distinction, Pass with Distinction, Pass with Credit and Pass.

- 3.2 A candidate shall not be eligible to attend for examination unless the prescribed work has been completed to the satisfaction of the teaching staff concerned. A candidate who is not eligible to present for examination or final assessment shall be deemed to have failed the examination/final assessment.

- 3.3 A candidate who has twice failed to pass the examination in any course or division of a course may not enrol for that course again except by special permission to be obtained in writing from the Faculty and then only under such conditions as may be prescribed.

4 Qualification requirements

4.1 Academic program

To qualify for the Graduate Certificate the candidate shall satisfactorily complete courses to the value of at least 12 units listed in 4.1 for the degree of Graduate Diploma in Computer Science.

4.2 Unacceptable combinations of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.3 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.

1 Duration of program

Except with the permission of the Faculty, the Graduate Certificate in Social Innovation and Entrepreneurship shall be completed in a minimum of one semester or a maximum of four semesters.

2 Admission

- 2.1 Except as provided for in 2.2 below, a candidate for admission to the program of study for the Graduate Certificate shall have qualified for admission to a degree of the University or for a degree of another institution accepted for the purpose by the Faculty.
- 2.2 The Faculty may, in special cases and subject to such conditions (if any) as it may see fit to impose in each case, accept as a candidate for the degree a person who does not qualify for admission to the program under 2.1 above but has given evidence satisfactory to the Faculty of fitness to undertake work for the degree.

2.3 Status, exemption and credit transfer

Candidates who have previously passed courses in postgraduate awards or equivalent in the University of Adelaide or another university and who wish to count such courses towards the Graduate Certificate in Innovation and Entrepreneurship may, on written application to the Faculty, be granted such status as the Faculty shall determine, to a maximum aggregate value of three (3) units. Courses completed more than ten years prior to application to Faculty will not be considered.

3 Assessment and examinations

- 3.1 There shall be four classifications of pass in each course for the Graduate Certificate: Pass with High Distinction, Pass with Distinction, Pass with Credit and Pass.
- 3.2 A candidate shall not be eligible to attend for examination unless the prescribed work has been completed to the satisfaction of the teaching staff concerned.
- 3.3 A candidate who fails to pass in a course and desires to take the course again shall again undertake study and satisfactorily do such written and practical work as the teaching staff concerned may prescribe, unless specifically exempted therefrom after written application to the Faculty for such exemption.
- 3.4 A candidate who has twice failed the examination in any course or division of a course may not enrol for the course again except by special permission of the Faculty and then only under such conditions as may be prescribed.

- 3.5 For the purpose of this Rule, a candidate who is refused permission to sit for examination, or who fails to attend all or part of a final examination (or supplementary examination if granted) after being enrolled for at least two thirds of the normal period during which the course is taught, shall be deemed to have failed the examination.

4 Qualification requirements

4.1 Academic program

To qualify for the Graduate Certificate in Innovation and Entrepreneurship, a candidate shall satisfactorily complete courses to the value of 12 units as given below:

4.1.1 Core courses

TECHCOMM 5016 Entrepreneurship and Innovation	3
TECHCOMM 5018 Opportunity Assessment	3

4.1.2 Elective courses

Two additional courses selected from the following:

TECHCOMM 5001 Marketing Technology & Innovation	3
TECHCOMM 5004 Managing Risk.....	3
TECHCOMM 5008 Leading and Managing.....	3
TTECHCOMM 5015 Project and Innovation Finance and Accounting	3
TECHCOMM 5021 Applied Project Management I	3
TECHCOMM 7022 Creativity and Innovation.....	3
TECHCOMM 7028 Managing Strategy & Growth.	3

With permission from the Program Coordinator, an elective may be chosen from any postgraduate course taught by the Entrepreneurship, Commercialisation and Innovation Centre (ECIC).

4.3 Unacceptable combination of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.4 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.

1 Duration of program

Except with the permission of the Faculty, the Graduate Certificate in Marine Engineering shall be completed in a minimum of one semester or a maximum of four semesters.

2 Admission

- 2.1 Except as provided for in 2.2 below, an applicant for admission to the program shall have qualified for:
- a a three year degree of the University of Adelaide in a relevant discipline or a degree of another institution accepted by the Faculty of Engineering, Computer and Mathematical Sciences as being equivalent, and have not less than two year's full-time (or part-time equivalent) work experience in a relevant field, *or*
 - b a four year degree in a relevant engineering discipline from the University, or a degree from another institution accepted by the Faculty of Engineering, Computer and Mathematical Sciences as being equivalent.
- 2.2 The Faculty may, in exceptional circumstances and subject to such conditions (if any) as it may see fit to impose, accept as a candidate for the degree of Graduate Certificate in Marine Engineering, a person who does not qualify in 2.1 above, but has given evidence satisfactory to the Faculty of fitness to undertake work for the degree.

2.3 Status or exemption

A candidate may not present for credit towards the degree any course which has been presented for any other award of this University or other institution, or which in the opinion of the Faculty is substantially similar to such course. Such a candidate will be required to undertake an alternative course as approved by the Head of School or nominee.

3 Assessment and examinations

- 3.1 There shall be four classifications of pass in any course for the Master Marine Engineering: Pass with High Distinction, Pass with Distinction, Pass with Credit, and Pass. Courses passed with a Conceded Pass classification may not be counted towards the requirements for the degree of Graduate Certificate in Marine Engineering.
- 3.2 A candidate shall not be eligible to attend for examination unless any prescribed coursework has been completed to the satisfaction of the teaching staff concerned.

- 3.3 A candidate who fails in a course and desires to take the course again shall again attend the course and satisfactorily do such written and practical work as the teaching staff concerned may prescribe, unless specifically exempted therefrom after written application to the Faculty for such exemption.
- 3.4 A candidate who has twice failed any course may not enrol for that course again except by special permission of the Faculty and then only under such conditions as may be prescribed.
- 3.5 For the purpose of this Rule, a candidate who is refused permission to sit for the assessment for a given course, or who without a reason accepted by the Executive Dean of the Faculty (or nominee) fails to attend all or part of the assessment, shall be deemed to have failed that course.

4 Qualification requirements

- 4.1 To qualify for the degree of Graduate Certificate in Marine Engineering, a candidate shall satisfactorily complete courses to a total value of at least 12 units including:
- a
 - i core courses to the value of 9 units from 4.2.1 (a) or (b)
 - ii at least one course selected from a stream in 4.2.2.
 - b at least 9 units of study must be taken from courses taught by the University of Adelaide.

Candidates must have their program of studies approved by the Postgraduate Coordinator or nominee at enrolment.

4.2 Academic program

4.2.1 Core Courses

- a **Submarine**
 - University of Adelaide**
 - MECH ENG 7042 Introduction to Submarine Design.....3
 - MECH ENG 7046 Submarine Design 102.....3
 - University of South Australia**
 - Systems Engineering for Complex Problem Solving.....3
 - or*
 - TECH COMM 5013 Systems Engineering I* ..3
 - * Only with permission of the Faculty.
- c **Naval Ships**
 - University of Adelaide**
 - MECH ENG 7048 Introduction to Naval Ship Design.....3

University of South Australia

Systems Engineering for Complex Problem Solving3
A further course in Naval Ships stream will be available in 2010.

4.2.2 Foundation streams

a Hull Stream

University of Adelaide

MECH ENG 7020 Materials Selection & Failure Analysis.....3
MECH ENG 7023 Fracture Mechanics.....3
MECH ENG 7025 Topics in Welded Structures3
MECH ENG 7043 Stresses in Plates and Shells3

b Electrical Stream

University of Adelaide

ELEC ENG 7048 Principles of Control Systems3
ELEC ENG 7049 Power Electronics Systems .3
ELEC ENG 7069 Electrical Energy Systems ...3
MECH ENG 7027 Engineering Acoustics3

c Mechanical Stream

University of Adelaide

MECH ENG 7020 Materials Selection and Failure Analysis.....3
MECH ENG 7030 Advanced Vibrations3
MECH ENG 7059 Finite Element Analysis of Structures.....3

Australian Maritime College

Design of Marine Machinery Systems.....3

d University of Adelaide

ELEC ENG 7065 Sonar Sensors & Systems....3
MECH ENG 7027 Engineering Acoustics3
MECH ENG 7030 Advanced Vibrations3

Curtin University

Physical and Acoustical Oceanography.....3

e Systems Engineering Stream

University of Adelaide

TECHCOMM 7029 Systems Engineering 23

University of South Australia

Military Systems - Operational and Technological Integration3
Requirements Engineering3
Principles of Test Evaluation N.....3

4.3 Unacceptable combination of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.4 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Graduate Certificate in Mathematical Signal and Information Processing

1 Duration of program

Except with the permission of the Faculty, the Graduate Certificate in Mathematical Signal Information Processing shall be completed in a minimum of one semester or a maximum of four semesters.

2 Admission

2.1 Except as provided for in 2.3 an applicant for admission to the program of study for the Graduate Certificate shall:

- a have qualified for a degree in the field of Electrical and Electronic Engineering, Mathematics or Physics either from, *or*
- b accepted by the University of Adelaide as equivalent *or*

2.2 have qualified for a degree in other areas of Engineering, or a related scientific area acceptable to the Board of Studies.

A person admitted under this sub-rule will normally be required satisfactorily to complete some initial bridging studies as deemed necessary by the Faculty, in addition to satisfying the requirements of the Graduate Certificate.

2.3 subject to the approval of the Council, the Board of Studies may, in special cases and subject to such conditions (if any) as it may see fit to impose in each case, accept as a candidate for the Certificate a person who does not qualify for admission under 2.1 or 2.2 but who has given evidence satisfactory to the Board of fitness to undertake work for the Certificate.

3 Assessment and examination

3.1 Academic progress

If in the opinion of the Board of Studies a candidate for the Graduate Certificate is not making satisfactory progress, the Faculty may, with the consent of the Council, terminate the candidature.

4 Qualification requirements

4.1 To qualify for the degree a candidate shall:

- a comply with conditions as prescribed in the Academic Program Rules *and*
- b pass such examinations on the candidate's program of advanced study as may be required by the Board of Studies.

4.2 Unacceptable combinations of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.3 Academic program

4.3.1 A candidate for the Graduate Certificate shall regularly attend lectures and tutorials, do such written and practical work as may be prescribed, and satisfactorily complete courses to the value of at least 12 units as defined in 4.3.2.

4.3.2 The program of study to the value of at least 12 units shall consist of courses selected from:

ELEC ENG 7059 Radar Principles and Systems - An introduction	3
SIP 7001 Information Theory.....	3
SIP 7002 Kalman Filtering and Tracking	3
SIP 7004 Mobile Communications.....	3
SIP 7005 Multisensor Data Fusion	3
SIP 7012 Detection, Estimation and Classification	3
SIP 7013 Introduction to Discrete Linear Systems	3
SIP 7015 Signal Synthesis and Analysis	3
SIP 7017 Specialised Studies A*.....	3
SIP 7018 Specialised Studies B*.....	3
SIP 7019 Specialised Studies C*.....	3
SIP 7020 Specialised Studies D*	3
SIP 7023 Satellite Communications	3
SIP 7024 Adaptive Signal Processing.....	3
SIP 7025 Beamforming and Array Processing	3
SIP 7026 Mathematical Coding and Cryptology.....	3
SIP 7030 Image Sensors and Processing	3
SIP 7031 Sonar Sensors and Systems.....	3

* Specialised Studies may consist of directed readings or short courses as approved by the Faculty. The content and assessment of these courses will be determined in each case by the academic coordinator of the program in consultation with the student's supervisor and the student.

Note: Intending students should consult the program coordinator early in the year in which they plan to study in order to ascertain whether particular courses will be available in that year and in which semester courses will be taught.

- 4.3.3 Candidates who have been granted exemption from one or more of the courses listed in 4.3.2 may select in their place relevant courses from other courses offered by the University of Adelaide or other tertiary institutions in South Australia as may be approved by the Board of Studies.

4.4 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the Board of Studies special circumstances exist, the Council, on the recommendation of the Board in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Graduate Certificate in Petroleum Geology and Geophysics

1 Duration of program

Except with the permission of the Faculty the program for the Graduate Certificate in Petroleum Geology and Geophysics shall be completed in at least one semester of full-time study or at least two semesters of part-time study.

2 Admission

2.1 An applicant for admission to the program of study for the Graduate Certificate shall:

- a have qualified for the degree of Bachelor of Science of the University with a major sequence in Geology or Geophysics, or hold qualifications from another institution accepted by the Faculty for the purpose
and
- b have obtained the approval of the Head, Australian School of Petroleum.

2.2 Subject to the approval of the Council the Faculty may, in special cases and subject to such conditions (if any) as it may see fit to impose in each case, accept as a candidate for the Graduate Certificate a person who does not qualify for admission to the program under 2.1 above but has given evidence satisfactory to the Faculty of their fitness to undertake work for the Graduate Certificate.

3 Assessment and examinations

3.1 There shall be the following classifications of Pass in each course for the graduate certificate: Pass with High Distinction, Pass with Distinction, Pass with Credit and Pass.

- 3.2 a A candidate who fails in a course and desires to take the course again shall again attend lectures and satisfactorily do such written and practical work as the teaching staff concerned may prescribe, unless specifically exempted therefrom after written application for such exemption.
- b A candidate who has twice failed the examination in any course or division of a course may not enrol for that course again except by special permission to be obtained in writing and then only under such conditions as may be prescribed.
- c For the purpose of this Rule, a candidate who is refused permission to sit for examination, or who fails, without a reason accepted by the Executive Dean of Sciences (or nominee), to attend all or part of a final examination (or

supplementary examination if granted) after remaining enrolled for at least nine teaching weeks of that semester, shall be deemed to have failed the examination.

4 Qualification requirements

A candidate for the Graduate Certificate shall regularly attend lectures and tutorials, do such written work and practical work as may be prescribed, and pass examinations in courses to the value of 12 units.

4.1 Academic program

4.1.1 The following shall be the courses for the Graduate Certificate in Petroleum Geology and Geophysics:

PETROL 7000 Petroleum Geology & Geophysics (B).....	6
PETROL 7001 Petroleum Geology & Geophysics (A).....	6

4.1.2 The Faculty may require a candidate to undertake additional work needed as background to the program.

4.2 Unacceptable combinations of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.3 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Graduate Certificate in Project Management

1 Duration of program

Except with the permission of the Faculty, the Graduate Certificate in Project Management shall be completed in a minimum of one semester or a maximum of four semesters.

2 Admission

2.1 An applicant for admission to the academic program for the Graduate Certificate in Project Management shall have qualified for a degree of the University or a degree of another institution accepted by the Faculty for the purpose as equivalent to a degree of the University.

2.2 The Faculty may, subject to such conditions as it may see fit to impose in each case, accept as a candidate for the Graduate Certificate in Project Management a person who does not satisfy the requirements of Rule 2.1 above but who has presented evidence satisfactory to the Faculty of fitness to undertake work for the Graduate Certificate.

2.3 Status, exemption and credit transfer

Candidates who have previously passed courses in postgraduate awards or equivalent at the University of Adelaide or another university and who wish to count such courses towards the Graduate Certificate in Project Management may, on written application to the Faculty, be granted such status as the Faculty shall determine, to a maximum aggregate value of six (6) units.

2.4 Articulation with other awards

A candidate for the Master of Project Management who does not complete the requirements for the Masters degree but satisfies the requirements for the Graduate Certificate may be admitted to that degree as appropriate.

3 Assessment and examinations

3.1 There shall be four classifications of pass in any course for the Graduate Certificate: Pass with High Distinction; Pass with Distinction; Pass with Credit; and Pass.

3.2 A candidate shall not be eligible to be assessed, by examination or otherwise, unless the prescribed work has been completed to the satisfaction of the teaching staff concerned.

3.3 A candidate who fails a course and wishes to repeat that course, shall, unless exempted partially there from by the Faculty, again complete the required work in the course to the satisfaction of the teaching staff concerned.

3.4 A candidate who has failed a course twice may not re-enrol in that course except by special permission of the Faculty and then only under such conditions as may be prescribed.

3.5 For the purpose of this Rule, a candidate who is refused permission to sit for examination shall be deemed to have failed the examination.

4 Qualification requirements

4.1 To qualify for the Graduate Certificate, a candidate shall satisfactorily complete courses to the value of 12 units comprising 9 units from the list of core courses and 3 units of elective courses:

4.1.1 Core courses

TECHCOMM 5004 Managing Risk.....	3
TECHCOMM 5015 Project and Innovation Finance and Accounting.....	3
TECHCOMM 5021 Applied Project Management 1	3

4.1.2 Elective courses

GEOLOGY 7002 Mineral Exploration for Project Managers	3
TECHCOMM 5002 Managing Product Design and Development	3
TECHCOMM 5008 Leading and Managing.....	3
TECHCOMM 5010 Technology Project Management	3
TECHCOMM 5012 Integrated Logistic Support....	3
TECHCOMM 5013 Systems Engineering	3
TECHCOMM 5014 Project Management Techniques	3
TECHCOMM 5016 Entrepreneurship and Innovation	3
TECHCOMM 5018 Opportunity Assessment	3
TECHCOMM 5024 Project Management Project (3 units).....	3
TECHCOMM 5026 Applied Project Management 2	3
TECHCOMM 5027 Business and Project Creation	3
TECHCOMM 7012 Business and Contract Legal Studies	3
TECHCOMM 7023 Carbon Impact and Strategy ..	3
TECHCOMM 7024 Complex Project Management 1	3
TECHCOMM 7025 Introduction to Climate Change	3
TECHCOMM 7029 Systems Engineering 2	3

TECHCOMM 7030 Logistics and Supply Chain Management	3
TECHCOMM 7031 Introduction to Mineral Processing	3
TECHCOMM 7033 Ongoing Carbon Management	3
TECHCOMM 7034 Mine Management and Safety	3

Note: students should discuss their choice of courses with the Program Coordinator

4.2 Unacceptable combination of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.3 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Graduate Certificate in Science and Technology Commercialisation

1 Duration of program

Except with the permission of the Faculty, the work for the Graduate Certificate in Science and Technology Commercialisation shall be completed in a minimum of one semester or a maximum of four semesters.

2 Admission

2.1 Except as provided for in 2.2 below, a candidate for admission to the program of study for the Graduate Certificate shall have qualified for admission to a degree of the University or for a degree of another institution accepted for the purpose by the Faculty.

2.2 The Faculty may, subject to such conditions as it may see fit to impose in each case, accept as a candidate for the Graduate Certificate a person who does not satisfy the requirements of Rule 2.1 above but who has presented evidence satisfactory to the Faculty of fitness to undertake work for the Graduate Certificate.

2.3 Status, exemption and credit transfer

Candidates who have previously passed courses in postgraduate awards or equivalent in the University of Adelaide or another university and who wish to count such courses towards the Graduate Certificate in Science and Technology Commercialisation may, on written application to the Faculty, be granted such status as the Faculty shall determine, to a maximum aggregate value of three (3) units. Courses completed more than five years prior to application to Faculty will not be considered.

2.4 Articulation with other awards

A candidate for the Graduate Diploma, or the Master, or the Master (Advanced) of Science and Technology Commercialisation who does not complete the requirements for the Graduate Diploma or the Masters, or the Masters (Advanced) degree but satisfies the requirements for the Graduate Certificate may be admitted to the Graduate Certificate in Science and Technology Commercialisation.

3 Assessment and examinations

3.1 There shall be four classifications of pass in any course for the Graduate Certificate: Pass with High Distinction; Pass with Distinction; Pass with Credit; and Pass.

3.2 A candidate shall not be eligible to be assessed, by examination or otherwise, unless the prescribed work has been completed to the satisfaction of the teaching staff concerned.

3.3 A candidate who fails a course and wishes to repeat that course, shall, unless exempted partially therefrom by the Faculty, again complete the required work in the course to the satisfaction of the teaching staff concerned.

3.4 A candidate who has failed a course twice may not re-enrol in that course except by special permission of the Faculty and then only under such conditions as may be prescribed.

3.5 For the purpose of this Rule, a candidate who is refused permission to sit for examination shall be deemed to have failed the examination.

4 Qualification requirements

4.1 Academic program

To qualify for the Graduate Certificate, a candidate shall satisfactorily complete courses to the value of 12 units of which at least 9 are core courses.

4.1.1 Core courses

TECHCOMM 5001 Marketing Technological Innovation	3
TECHCOMM 5002 Managing Product Design and Development	3
TECHCOMM 5003 Strategic Analysis for Technology Commercialisation	3
TECHCOMM 5005 Financing Commercialisation ..	3
TECHCOMM 5006 Technology Management and Transfer	3
TECHCOMM 5007 Legal Issues of the Commercialisation Process	3
TECHCOMM 5008 Leading and Managing	3
TECHCOMM 5011 Internationalisation of Technology	3

4.1.2 Elective courses

Any postgraduate course taught by the Entrepreneurship, Commercialisation and Innovation Centre (EICIC) except for:

TECHCOMM 5025 Commercialisation: Process and Strategy	3
TECHCOMM 5027 Business & Project Creation ..	3

4.2 Unacceptable combination of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.3 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Graduate Certificate in Sciences (Defence)

1 Duration of program

Except with the permission of the Faculty, the Graduate Certificate in Sciences (Defence) shall be completed in a minimum of one semester or a maximum of four semesters.

2 Admission requirements

2.1 Except as provided for in 2.2 below, an applicant for admission to the program shall:

- a have qualified for a degree from the University of Adelaide (or equivalent) in a discipline related to the proposed field of study *and*
- b shall have had at least 18 months' employment experience in a defence-related industry.

2.2 The Board of Studies may, in exceptional circumstances and subject to such conditions (if any) as it may see fit to impose, accept as a candidate for the award of Graduate Certificate in Sciences (Defence), a person who does not qualify under 2.1 above, but has given evidence satisfactory to the Board of fitness to undertake work for the degree.

2.3 Status or exemption

A candidate may not present for credit towards the award any course which has been presented as part of the requirements for any other award of this University or other institution, or which in the opinion of the Faculty is substantially similar to such course.

3 Assessment and examinations

3.1 There shall be four classifications of pass in any course for the Graduate Certificate in Sciences (Defence): Pass with High Distinction, Pass with Distinction, Pass with Credit, and Pass. Courses passed with a conceded pass classification may not be counted towards the requirements for the award of Graduate Diploma in Sciences (Defence).

3.2 A candidate shall not be eligible to attend for examination unless any prescribed coursework has been completed to the satisfaction of the teaching staff concerned.

3.3 A candidate who fails in a course and desires to take the course again shall again attend the course and satisfactorily do such written and practical work as the teaching staff concerned may prescribe, unless specifically exempted therefrom after written application to the Board of Studies for such exemption.

3.4 A candidate who has twice failed any course may not enrol for that course again except by special permission of the Board of Studies and then only under such conditions as may be prescribed.

3.5 For the purpose of this Rule, a candidate who is refused permission to sit for the assessment for a given course, or who without a reason accepted by the Convenor of the Board of Studies (or nominee) fails to attend all or part of the assessment, shall be deemed to have failed that course.

4 Qualification requirements

4.1 To qualify for the award of Graduate Certificate in Sciences (Defence), a candidate shall satisfactorily complete courses from the following list to a total value of at least 12 units. These must include the 3-unit core course from Group A.

4.2 Candidates may present courses offered by other universities from a register of approved courses maintained by the Board of Studies, but the total value of these external courses must not exceed 6 units (including the core course).

Candidates must have their proposed program of studies approved by the Convenor of the Board of Studies or nominee at enrolment.

Group A: Core course

This course is offered by the University of South Australia:

Systems Engineering for Complex Problem Solving.....	3
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Group B: Defence technology stream

DEFSCI 7005 Principles of Control Systems.....	3
DEFSCI 7006 Antennas and Propagation.....	3
DEFSCI 7007 Principles of RF Engineering.....	3
DEFSCI 7029 Kalman Filtering and Tracking.....	3
DEFSCI 7035 Detection, Estimation and Classification.....	3
DEFSCI 7203 Photonics IV-D.....	3
DEFSCI 7204 Photonics III-D.....	3
DEFSCI 7206 Physical Optics III-D.....	3
DEFSCI 7207 Sonar Sensors and System.....	3

Note: Special conditions apply to choosing courses with a Photonics theme. There is a preferred sequence within these courses, and candidates should seek guidance on their enrolment pattern. Electromagnetics III contains material which is assumed knowledge in the remaining courses, and should be taken by candidates without this specialist undergraduate Physics background. Further Photonics options may become available.

Group C: Information and communication technology stream

DEFSCI 7000 Cognitive Science: Minds, Brains and Computers.....	3
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DEFSCI 7001 Decision Making in Real Environments	3
DEFSCI 7002 Distributed Systems	3
DEFSCI 7003 Artificial Intelligence.....	3
DEFSCI 7009 Modelling Telecommunication Traffic	3
DEFSCI 7019 Statistics in Engineering	3
DEFSCI 7022 Multimedia Communications.....	3
DEFSCI 7023 Photonics for Communications	3
DEFSCI 7028 Information Theory.....	3
DEFSCI 7035 Detection, Estimation and Classification.....	3
DEFSCI 7042 Computer Networks and Applications	3
DEFSCI 7043 Communication Networks Design...	3
DEFSCI 7044 Adaptive Business Intelligence.....	3
DEFSCI 7060 Computer Vision.....	3
DEFSCI 7061 Evolutionary Computation.....	3
DEFSCI 7063 Transform Methods & Signal Processing	3
DEFSCI 7210 Human Factors and Ergonomics	3

The availability of all elective courses is conditional on the availability of staff and facilities and sufficient enrolments.

Other relevant courses may be presented towards the requirements of the Graduate Certificate in Sciences (Defence) with the written approval of the Convenor of the Board of Studies.

4.3 Unacceptable combinations of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of Board of Studies, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.4 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the Board of Studies special circumstances exist, the Council, on the recommendation of the Board in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Graduate Certificate in Sciences (Defence Signal and Information Processing)

1 Duration of program

Except with the permission of the Faculty, the Graduate Certificate in Sciences (Defence Signal and Information Processing) shall be completed in a minimum of one semester or a maximum of four semesters.

2 Admission

2.1 Except as provided for in 2.2 an applicant for admission to the program of study for the Graduate Certificate shall have qualified for an Honours award in Mathematics, Physics or in Electrical and Electronic Engineering; or a Bachelor award that includes a major in either Mathematics or Physics, or for an equivalent degree accepted for the purpose by the University, plus some experience in the Defence industry.

2.2 The Board of Studies may, in exceptional circumstances and subject to such conditions (if any) as it may see fit to impose in each case, accept as a candidate for the degree a person who does not qualify under 2.1 but who has given evidence satisfactory to the Board of fitness to undertake work for the degree.

2.3 Credit transfer

2.3.1 No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

2.3.2 Candidates may present courses offered by other universities from a register of approved courses maintained by the Board of Studies, but the total value of these external courses must not exceed 6 units (including the core course).

3 Assessment and examination

Academic progress

If in the opinion of the Board of Studies a candidate for the degree is not making satisfactory progress, the Faculty may terminate the candidature.

4 Qualification requirements

4.1 To qualify for the degree a candidate shall satisfactorily complete courses from the following list to a total value of a total of at least 12 units as defined in 4.2.1.

4.2 Academic program

4.2.1 The program of study and project work to the value of at least 12 units shall consist of:

i Compulsory course[†]

Systems Engineering for Complex Problem Solving..... 3

ii courses to the value of at least 6 units selected from:

DEFSCI 7011 Adaptive Signal Processing 3

DEFSCI 7012 Multisensor Data Fusion..... 3

DEFSCI 7028 Information Theory..... 3

DEFSCI 7029 Kalman Filtering and Tracking... 3

DEFSCI 7035 Detection, Estimation and Classification 3

DEFSCI 7036 Introduction to Discrete Linear Systems 3

DEFSCI 7041 Image Sensors & Processing ... 3

[†] Offered by the University of South Australia

iii courses to the value of at least 3 units selected from:

a courses listed in 4.2.1 (ii)

or

b from the following courses

DEFSCI 7015 Mathematical Coding & Cryptology 3

DEFSCI 7028 Information Theory 3

DEFSCI 7030 Error Control Coding..... 3

DEFSCI 7031 Mobile Communications 3

DEFSCI 7037 Signal Synthesis and Analysis 3

DEFSCI 7038 Specialised Studies D..... 3

DEFSCI 7039 Satellite Communications.... 3

DEFSCI 7060 Computer Vision 3

DEFSCI 7063 Transform Methods and Signal Processing * 3

* DEFSCI 7037 and 7063 cannot both be presented

Specialised Studies may consist of directed readings or approved short courses as approved by the Faculty. The content and assessment of these courses will be determined in each case by the academic coordinator of the course in consultation with the student's supervisor and the student.

c other relevant courses as approved by the Board of Studies from other postgraduate programs of the University.

- 4.2.2 Students who are required to undertake preliminary work will normally enrol in one of the following courses:
- SIP 7027 A/B Qualifying Studies in Mathematics Part 1 & 2 12
- SIP 7028 Qualifying Studies in Mathematics..... 12
- On satisfactory completion of this work the student will proceed to study as outlined in 4.2.1 above.
- 4.2.3 Candidates who are granted exemption from one or more of the courses listed in 4.2.1 (ii) on the basis of previous studies may select in their place other relevant courses offered by the University of Adelaide or other tertiary institutions in South Australia as may be approved by the Faculty.
- 4.2.4 The availability of all courses is conditional on there being adequate staffing and resources.

4.3 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the Board of Studies special circumstances exist, the Board in each case may vary any of the provisions of the Academic Program Rules for any particular award.



Graduate Certificate in Social Entrepreneurship and Innovation

1 Duration of Program

Except with the permission of the Faculty, the Graduate Certificate in Social Entrepreneurship and Innovation shall be completed in a minimum of one semester or a maximum of four semesters.

2 Admission

- 2.1 An applicant for admission to the academic program for the Graduate Certificate in Social Entrepreneurship and Innovation shall have qualified for the degree of the University or a degree of another institution accepted by the Faculty for the purpose as equivalent to a degree of the University.
- 2.2 The Faculty may, subject to such conditions as it may see fit to impose in each case, accept as a candidate for the Graduate Certificate in Social Entrepreneurship and Innovation a person who does not satisfy the requirements of Rule 2.1 above but who has presented evidence satisfactory to the Faculty of fitness to undertake work for the Graduate Certificate.
- 2.3 **Status or Credit Transfer**
Candidates who have previously passed courses in postgraduate awards or equivalent in the University of Adelaide or another university and who wish to count such courses towards the Graduate Certificate in Social Entrepreneurship and Innovation may, on written application to the Faculty, be granted such status as the Faculty shall determine, to a maximum aggregate value of three (3) units.

3 Assessment and Examinations

- 3.1 There shall be four classifications of pass in any course for the Graduate Certificate: Pass with High Distinction; Pass with Distinction; Pass with Credit; and Pass.
- 3.2 A candidate shall not be eligible to be assessed by examination or otherwise, unless the prescribed work has been completed to the satisfaction of the teaching staff concerned.
- 3.3 A candidate who fails a course and wishes to repeat the course, shall, unless exempted partially therefrom by the Faculty, again complete the required work in the course to the satisfaction of the teaching staff concerned.
- 3.4 A candidate who has failed a course twice may not re-enrol in that course except by special permission of the Faculty and then only under such conditions as may be prescribed.

- 3.5 For the purpose of the Rule, a candidate who is refused permission to sit for examination shall be deemed to have failed the examination.

4. Qualification Requirements

4.1 Academic Program

To qualify for the Graduate Certificate, a candidate shall satisfactorily complete courses to the value of 12 units of which 6 are core courses.

4.1.1 Core Courses

TECHCOMM 5016 Entrepreneurship and Innovation	3
TECHCOMM 7019 Social Entrepreneurship	3

4.1.2 Elective Courses

At least 6 units of courses chosen from recommended electives:

TECHCOMM 7014 Social Venture Funding.....	3
TECHCOMM 7027 Foresight and Social Change..	3
TECHCOMM 5018 Opportunity Assessment	3
TECHCOMM 5015 Project and Innovation Finance and Accounting.....	3
TECHCOMM 5001 Marketing Technology and Innovation	3
TECHCOMM 5021 Applied Project Management 1	3
TECHCOMM 7022 Creativity and Innovation.....	3

or from other available courses listed within the Academic Program Rules for the GC Project Management, GC Science and Technology Commercialisation and GC Innovation and Entrepreneurship.

4.2 Unacceptable Combination of Courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.3 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special Circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Graduate Certificate in Water Resources Management

1 Duration of program

Except with the permission of the Faculty, the Graduate Certificate in Water Resources Management shall be completed in a minimum of one semester or a maximum of four semesters.

2 Admission

2.1 Except as provided for in 2.2 below, an applicant for admission to the program shall have qualified for:

a a Bachelor degree with Honours from the University of Adelaide in an Engineering or Science discipline related to the proposed field of study, or a degree of another institution accepted by the Faculty of Engineering, Computer and Mathematical Sciences as being equivalent

or

b at least a three-year degree of the University or a degree of another institution accepted by the Faculty for the purpose as equivalent to a three-year (or more) degree of the University and have professional work experience to an appropriate level as assessed at the discretion of the Faculty.

2.2 The Faculty may, in exceptional circumstances and subject to such conditions (if any) as it may see fit to impose, accept as a candidate for the degree of Graduate Certificate in Water Resources Management, a person who does not qualify in 2.1 above, but has given evidence satisfactory to the Faculty of fitness to undertake work for the degree.

2.3 Status or exemption

A candidate may not present for credit towards the award any course which has been presented as part of the requirements for any other award of this University or other institution, or which in the opinion of the Faculty is substantially similar to such course.

3 Assessment and examinations

3.1 There shall be four classifications of pass in any course for the Graduate Certificate in Water Resources Management: Pass with High Distinction, Pass with Distinction, Pass with Credit, and Pass. Courses passed with a Conceded Pass classification may not be counted towards the requirements for the degree of Graduate Certificate in Water Resources Management.

3.2 A candidate shall not be eligible to attend for examination unless any prescribed coursework has been completed to the satisfaction of the teaching staff concerned.

3.3 A candidate who fails in a course and desires to take the course again shall again attend the course and satisfactorily do such written and practical work as the teaching staff concerned may prescribe, unless specifically exempted therefrom after written application to the Faculty for such exemption.

3.4 A candidate who has twice failed any course may not enrol for that course again except by special permission of the Faculty and then only under such conditions as may be prescribed.

3.5 For the purpose of this Rule, a candidate who is refused permission to sit for the assessment for a given course, or who without a reason accepted by the Executive Dean of the Faculty (or nominee) fails to attend all or part of the assessment, shall be deemed to have failed that course.

4 Qualification requirements

4.1 To qualify for the degree of Graduate Certificate in Water Resources Management, a candidate shall satisfactorily complete studies to a total value of at least 12 units of which at least 6 units must be chosen from 4.2 (a) and the balance from 4.2(b)

At least 6 units of study must be undertaken from courses offered by The University of Adelaide

Candidates must have their program of studies approved by the Postgraduate Coordinator or nominee at enrolment.

4.2 Academic program

- a A candidate shall satisfactorily complete at least 2 of the following courses:
- | | |
|--|---|
| WRM 7000 Global Water Systems I (Natural Water Cycle)..... | 3 |
| WRM 7002 Global Water Systems II (Engineered Water Cycle)..... | 3 |
| WRM 7003 Water Resources and Society | 3 |
| WRM 7004 Water Resources Planning & Management | 3 |
- b Elective courses from 4.3 of the Graduate Diploma in Water Resources Management.

4.3 Unacceptable combination of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.4 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Graduate Diploma in Applied Statistics

Note: There will be no intake into this program in 2009.

1 Duration of program

Except with the permission of the Faculty, the Graduate Diploma in Applied Statistics shall be completed in a minimum of two semesters or a maximum of eight semesters.

2 Admission

- 2.1 Except as provided for in 2.2 a candidate for admission to the program for the Graduate Diploma shall have qualified for admission to a degree of the University or to a degree of another university accepted for the purpose by the University and have obtained the approval of the Faculty.
- 2.2 Subject to the approval of the Council the Faculty may, in special cases and subject to such conditions (if any) as it may see fit to impose in each case, accept as a candidate for the Graduate Diploma a person who does not hold a degree of a university but has given evidence satisfactory to the Faculty of his fitness to undertake work for the diploma.
- 2.3 Applicants for the Graduate Diploma will be expected to have knowledge of mathematics and statistics equivalent to that which would be obtained by passing Mathematics IA and IB and Statistical Practice 1 as offered by the University of Adelaide.

3 Assessment and examinations

- 3.1 There shall be four classifications of pass in each course for the diploma; Pass with High Distinction, Pass with Distinction, Pass with Credit, and Pass.
- 3.2 A candidate who fails to pass in a course and desires to take the course again shall again attend lectures and satisfactorily do such written and practical work as the teaching staff concerned may prescribe, unless specifically exempted therefrom after written application to the Faculty for such exemption.
- 3.3 A candidate who has twice failed to pass the examination in any course or division of a course may not enrol for that course again except by special permission to be obtained in writing from the Faculty and then only under such conditions as may be prescribed.
- 3.4 For the purpose of this Rule a candidate who is refused permission to sit for examination, or who fails, without a reason accepted by the Head of the Discipline of Statistics as adequate, to attend all or part of a final examination (or supplementary examination if remaining enrolled for at least eight teaching weeks of that semester), shall be deemed to have failed the examination.

4 Qualification requirements

4.1 Academic program

To qualify for the Graduate Diploma, a candidate shall regularly attend lectures and tutorials, do such written work as may be prescribed, and pass examinations in a selection of courses chosen from the following list, to an aggregate value of at least 18 units, with at most 6 units from Level II.

4.1.1 Level II Statistics courses

STATS 7066 Introduction to Mathematical Statistics II	2
STATS 7067 Statistical Practice II	2
STATS 7068 Statistical Modelling	2

4.1.2 Level III Statistics courses

APP MTH 7066 Life Contingencies III	3
STATS 7054 Statistical Modelling III	3
STATS 7055 Bioinformatics III	3
STATS 7056 Biostatistics III	3
STATS 7057 Sampling Theory and Practice III	3
STATS 7058 Time Series III	3
STATS 7059 Mathematical Statistics III	3
STATS 7060 Industrial Statistics III	2
4.1.3 At most, two of the Level III Applied Mathematics courses:	
APP MTH 7056 Telecommunications Systems Modelling	3
APP MTH 7065 Applied Probability III	3
APP MTH 7072 Optimisation	3

4.1.4 Statistics courses listed in 5.3.1 for the degree of Master of Mathematical Sciences.

4.1.5 Other Statistics courses which may be offered from time to time by the School of Mathematical Sciences and the Biometry Section (Waite Campus) of the University of Adelaide.

4.1.6 Compulsory project

STATS 7064 Statistics Diploma Project	6
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In addition to the course work each student will be expected to complete a project chosen in consultation with and supervised by a supervisor from the Discipline of Statistics.

4.2 On the recommendation of the Head of the Discipline of Statistics the Faculty may exempt a candidate from the need to satisfy the prerequisites prescribed for the course.

4.3 Unacceptable combinations of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.4 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Graduate Diploma in Computer Science

1 Duration of program

Except with the permission of the Faculty, the Graduate Diploma in Computer Science shall be completed in a minimum of two semesters or a maximum of eight semesters.

2 Admission

- 2.1 Except as provided for in 2.2 a candidate for admission to the program for the Graduate Diploma shall have qualified for admission to a degree of the University in a field other than Computer Science, or to a degree of another university accepted for the purpose by the University and have obtained the approval of the School of Computer Science.
- 2.2 Subject to the approval of the Council the Faculty may, in special cases and subject to such conditions (if any) as it may see fit to impose in each case, accept as a candidate for the Graduate Diploma a person who does not hold a degree of a university but has given evidence satisfactory to the Faculty of fitness to undertake work for the Graduate Diploma.

2.3 Status and credit transfer

- 2.3.1 Subject to 2.4.1 below, no candidate will be permitted to count for the Graduate Diploma in Computer Science any course that in the opinion of the School contains substantially the same material as any other course which the candidate has presented already for another qualification.
- 2.3.2 A candidate who has passed courses in other educational institutions may, on written application, be granted such exemption from the requirements of these rules as the Faculty shall determine. Status may be granted for a maximum of 3 units under 4.1 of the Academic Program Rules.

2.4 Articulation with other awards

- 2.4.1 A candidate who has been enrolled for the Graduate Certificate at the University of Adelaide and who has not been awarded the Graduate Certificate shall, on written application, be permitted to transfer all equivalent courses towards the Graduate Diploma degree.
- 2.4.2 A candidate who holds the Graduate Certificate in Computer Science from the University of Adelaide shall surrender the Graduate Certificate before being awarded the Graduate Diploma.

3 Assessment and examinations

- 3.1 There shall be four classifications of pass at an examination in any course for the Graduate Diploma: Pass with High Distinction, Pass with Distinction, Pass with Credit and Pass.

3.2 A candidate who fails to pass in a course and desires to take the course again shall again attend lectures and satisfactorily do such written and practical work as the professor or lecturer concerned may prescribe, unless specifically exempted therefrom after written application to the Faculty for such exemption.

3.3 A candidate who has twice failed to pass the examination in any course or division of a course may not enrol for that course again except by special permission to be obtained in writing from the Faculty and then only under such conditions as may be prescribed.

4 Qualification requirements

4.1 Academic Program

A candidate for the Graduate Diploma shall regularly attend lectures and tutorials, do such written work as shall be prescribed, and pass examinations in courses offered by the School of Computer Science to the value of at least 24 units comprising at least 9 units of Level II and at least 12 units of Level III courses including COMP SCI 7015 Software Engineering and Project.

4.1.1 Level II

COMP SCI 7080 Computer Science Concepts.....	3
COMP SCI 7081 Computer Systems	3
COMP SCI 7082 Data Structures and Algorithms..	3
COMP SCI 7083 Database and Information Systems	3
COMP SCI 7084 Introduction to Software Engineering.....	3
COMP SCI 7085 Numerical Methods	3
COMP SCI 7088 Systems Programming in C and C++	3
COMP SCI 7097 Communication & Study Skills	3

4.1.2 Level III

COMP SCI 7006 Programming Techniques	3
COMP SCI 7015 Software Engineering and Project.....	3
COMP SCI 7026 Computer Architecture	3
COMP SCI 7031 Advanced Programming Paradigms	3
COMP SCI 7039 Computer Networks & Applications	3
COMP SCI 7059 Artificial Intelligence.....	3
COMP SCI 7064 Operating Systems	3
COMP SCI 7076 Distributed Systems	3

COMP SCI 7089 Event Driven Computing3
 COMP SCI 7090 Computer Graphics3

Subject to permission from the Head of the School of Computer Science (or nominee) a student may also undertake a selection of non-project courses from the Academic Program Rules for the degree of Master of Computer Science.

4.2 On the recommendation of the Head of the School of Computer Science, the Faculty may exempt a candidate from the need to satisfy the prerequisites prescribed for the course.

4.3 Unacceptable combinations of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.4 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Graduate Diploma in Innovation and Entrepreneurship

1 Duration of program

Except with the permission of the Faculty, the Graduate Diploma in Innovation and Entrepreneurship shall be completed in a minimum of two semesters or a maximum of eight semesters.

2 Admission

2.1 An applicant for admission to the program for the Graduate Diploma in Innovation and Entrepreneurship shall have qualified for the degree of the University or another institution accepted by the University for the purpose as equivalent, shall have had at least 5 years approved professional work experience.

2.2 The Faculty may, subject to such conditions as it may see fit to impose in each case, accept as a candidate for the Graduate Diploma a person who does not satisfy the requirements of Rule 2.1 above but who has presented evidence satisfactory to the Faculty of fitness to undertake work for the Graduate Diploma.

2.3 Status, exemption and credit transfer

With the exception of the Graduate Certificate in Innovation and Entrepreneurship and Graduate Certificate in Social Entrepreneurship and Innovation (see 2.4 below), candidates who have previously passed courses in postgraduate awards or equivalent at the University of Adelaide or another university and who wish to count such courses towards the Graduate Diploma in Innovation and Entrepreneurship may, on written application to the Faculty, be granted such status as the Faculty shall determine, to a maximum aggregate value of six (6) units. Courses completed more than ten years prior to application to Faculty will not be considered.

2.4 Articulation with other awards

A candidate who has been admitted to the Graduate Certificate in Innovation and Entrepreneurship or to the Graduate Certificate in Social Entrepreneurship and Innovation and who wishes to count courses presented for the Graduate Certificate towards the Graduate Diploma must surrender the Graduate Certificate before being admitted to the Graduate Diploma in Innovation and Entrepreneurship.

3 Assessment and examinations

3.1 There shall be four classifications of pass in any course for the Graduate Diploma: Pass with High Distinction; Pass with Distinction; Pass with Credit; and Pass. The Diploma Project shall be assessed on a Satisfactory/Unsatisfactory basis.

3.2 A candidate shall not be eligible to be assessed, by examination or otherwise, unless the prescribed work has been completed to the satisfaction of the teaching staff concerned.

3.3 A candidate who fails a course and wishes to repeat that course, shall, unless exempted partially therefrom by the Faculty, again complete the required work in the course to the satisfaction of the teaching staff concerned.

3.4 A candidate who has failed a course twice may not re-enrol in that course except by special permission of the Faculty and then only under such conditions as may be prescribed.

3.5 A candidate who is refused permission to sit for examination shall be deemed to have failed the examination.

4 Qualification requirements

4.1 Academic program

To qualify for the Graduate Diploma, a candidate shall satisfactorily complete courses to the value of 24 units of which 18 units are core courses plus elective courses to the value of 6 units from the list given below.

4.1.1 Core courses

TECHCOMM 5001 Marketing Technology and Innovation	3
TECHCOMM 5015 Project and Innovation Finance and Accounting	3
TECHCOMM 5016 Entrepreneurship and Innovation	3
TECHCOMM 5018 Opportunity Assessment	3
TECHCOMM 7022 Creativity and Innovation.....	3
TECHCOMM 7028 Managing Strategy and Growth	3

4.1.2 Elective courses

TECHCOMM 5002 Managing Product Design and Development	3
TECHCOMM 5003 Strategic Analysis for Technology Commercialisation	3
TECHCOMM 5004 Managing Risk	3
TECHCOMM 5005 Financing Commercialisation ..	3
TECHCOMM 5006 Technology Management and Transfer	3
TECHCOMM 5007 Legal Issues of the Commercialisation Process.....	3
TECHCOMM 5008 Leading and Managing.....	3
TECHCOMM 5011 Internationalisation of Technology.....	3

TECHCOMM 5021 Applied Project Management I	3
TECHCOMM 7012 Business and Contract Legal Studies	3
TECHCOMM 7014 Social Venture Funding.....	3
TECHCOMM 7019 Social Entrepreneurship	3

With the permission of the Program Coordinator, any elective may be chosen from any postgraduate course taught by the Entrepreneurship, Commercialisation and Innovation Centre (ECIC).

4.2 Unacceptable combination of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.3 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.

1 Duration of program

Except with the permission of the Faculty, the Graduate Diploma in Marine Engineering shall be completed in a minimum of two semesters or a maximum of eight semesters.

2 Admission

2.1 Except as provided for in 2.2 below, an applicant for admission to the program shall have qualified for:

- a a four year degree in a relevant engineering discipline of the University of Adelaide or a degree of another institution accepted by the Faculty of Engineering, Computer and Mathematical Sciences as being equivalent, and have not less than one year full-time (or part-time equivalent) work experience in a relevant field *or*
- b a Graduate Certificate in Marine Engineering.

2.2 The Faculty may, in exceptional circumstances and subject to such conditions (if any) as it may see fit to impose, accept as a candidate for the degree of Graduate Diploma in Marine Engineering, a person who does not qualify in 2.1 above, but has given evidence satisfactory to the Faculty of fitness to undertake work for the degree.

2.3 Articulation with other awards

2.3.1 A candidate who has been enrolled for the Graduate Certificate in Marine Engineering at the University of Adelaide and who has not been awarded the Graduate Certificate shall, on written application, be given consideration by the Faculty to transfer all equivalent courses towards the Graduate Diploma.

2.3.2 A candidate who holds the Graduate Certificate in Marine Engineering from the University of Adelaide shall surrender the Graduate Certificate before being awarded the Graduate Diploma.

2.4 Status or exemption

A candidate may not present for credit towards the degree any course which has been presented for any other award of this University or other institution, or which in the opinion of the Faculty is substantially similar to such course. Such a candidate will be required to undertake an alternative course as approved by the Head of School or nominee.

A candidate who has passed courses in this or other educational institutions and who has not presented these courses towards an award may, on written application to the Faculty, be granted such exemption from the requirements of these Rules as the Faculty shall determine. Subject to

the conditions specified in Clause 4.1 (b), status may be granted for a maximum of 6 units under Clause 4.2 of the Academic Program Rules.

3 Assessment and examinations

3.1 There shall be four classifications of pass in any course for the Master Marine Engineering: Pass with High Distinction, Pass with Distinction, Pass with Credit, and Pass. Courses passed with a Conceded Pass classification may not be counted towards the requirements for the degree of Graduate Diploma in Marine Engineering.

3.2 A candidate shall not be eligible to attend for examination unless any prescribed coursework has been completed to the satisfaction of the teaching staff concerned.

3.3 A candidate who fails in a course and desires to take the course again shall again attend the course and satisfactorily do such written and practical work as the teaching staff concerned may prescribe, unless specifically exempted therefrom after written application to the Faculty for such exemption.

3.4 A candidate who has twice failed any course may not enrol for that course again except by special permission of the Faculty and then only under such conditions as may be prescribed.

3.5 For the purpose of this Rule, a candidate who is refused permission to sit for the assessment for a given course, or who without a reason accepted by the Executive Dean of the Faculty (or nominee) fails to attend all or part of the assessment, shall be deemed to have failed that course.

4 Qualification requirements

4.1 To qualify for the degree of Graduate Diploma in Marine Engineering, a candidate shall satisfactorily complete courses to a total value of at least 24 units including:

- a i core courses to the value of 9 units from 4.2.1 (a) or (b)
 - ii the remaining courses may be chosen from 4.2.2, 4.2.3 or both of them. Candidates are not obliged to complete all of the courses from a particular stream. However, it is suggested that it may be preferable for a candidate to complete all courses listed within the chosen stream.
- b at least 18 units of study must be taken from courses taught by the University of Adelaide.

Candidates must have their program of studies approved by the Postgraduate Coordinator or nominee at enrolment.

4.2 Academic program

4.2.1 Core courses

a Submarine

University of Adelaide

MECH ENG 7042 Introduction to Submarine Design.....3

MECH ENG 7046 Submarine Design 102.....3

University of South Australia

Systems Engineering for Complex Problem Solving3

or

TECH COMM 5013 Systems Engineering 1* ..3

* Only with tpermission of the Faculty.

b Naval Ships+

University of Adelaide

MECH ENG 7048 Introduction to Naval Ship Design.....3

University of South Australia

Systems Engineering for Complex Problem Solving3

+ A further course in Naval Ships stream will be available in 2010.

4.2.2 Foundation streams

a Hull Stream

University of Adelaide

MECH ENG 7020 Materials Selection & Failure Analysis.....3

MECH ENG 7023 Fracture Mechanics.....3

MECH ENG 7025 Topics in Welded Structures3

MECH ENG 7043 Stresses in Plates and Shells3

b Electrical Stream

University of Adelaide

ELEC ENG 7048 Principles of Control Systems3

ELEC ENG 7049 Power Electronics Systems ...3

ELEC ENG 7069 Electrical Energy Systems ...3

MECH ENG 7027 Engineering Acoustics3

c Mechanical Stream

University of Adelaide

MECH ENG 7020 Materials Selection and Failure Analysis.....3

MECH ENG 7030 Advanced Vibrations3

MECH ENG 7059 Finite Element Analysis of Structures.....3

Australian Maritime College

Design of Marine Machinery Systems.....3

d Signature Stream

University of Adelaide

ELEC ENG 7065 Sonar Sensors & Systems....3

MECH ENG 7027 Engineering Acoustics3

MECH ENG 7030 Advanced Vibrations3

Curtin University

Physical and Acoustical Oceanography.....3

e Systems Engineering Stream

University of Adelaide

TECHCOMM 7029 Systems Engineering 23

University of South Australia

Military Systems - Operational and Technological Integration3

Requirements Engineering3

Principles of Test Evaluation N.....3

4.2.3 Electives*

a Hull Stream

University of Adelaide

APP MTH 7055 Computational Fluid Dynamics3

CHEM ENG 7047 Composites & Multiphase Polymers.....3

MECH ENG 7026 Advanced Topics in Fluid Mechanics3

MECH ENG 7059 Finite Element Analysis of Structures.....3

MECH ENG 7061 Corrosion Principles and Prevention.....3

Project in Marine Engineering.....12

either

TECHCOMM 5021 Applied Project Management 13

or

RMIT

Risk & Technology Decisions3

ACA

Coatings Engineering3

b Electrical Stream

University of Adelaide

ELEC ENG 7046 Power Quality & Fault Diagnosis3

MECH ENG 7034 Advanced Digital Control ...3

Project in Marine Engineering.....12

either

TECHCOMM 5021 Applied Project Management 13

or

	RMIT		ELEC ENG 7055 Antennas and Propagation...3
	Risk and Technology Decisions.....3		ELEC ENG 7065 Sonar Sensors & Systems...3
	University of South Australia		SIP 7023 Satellite Communications.....3
	Electromagnetic Compatibility.....3		Project in Marine Engineering..... 12
	Curtin University		<i>either</i>
	Marine Acoustics.....3		TECHCOMM 5021 Applied Project
c	Mechanical Stream		Management 13
	University of Adelaide		<i>or</i>
	APP MTH 7055 Computational Fluid		RMIT
	Dynamics.....3		Risk and Technology Decisions.....3
	MECH ENG 7026 Advanced Topics in Fluid	4.3	Unacceptable combination of courses
	Mechanics 3		No candidate will be permitted to count towards
	MECH ENG 7043 Stresses in Plates		an award any course, together with any other
	and Shells3		course, which, in the opinion of the Faculty
	MECH ENG 7060 Mechanical Signature		concerned, contains a substantial amount of the
	Analysis.....3		same material; and no course or portion of a
	Project in Marine Engineering..... 12		course may be counted twice towards an award.
	<i>either</i>	4.4	Graduation
	TECHCOMM 5021 Applied Project		Subject to Chapter 89 of the Statutes, candidates
	Management 13		who have satisfied the requirements for any award
	RMIT		of the University shall be admitted to that award at
	Risk and Technology Decisions.....3		a graduation ceremony for the purpose.
d	Signature Stream	5	Special circumstances
	University of Adelaide		When in the opinion of the relevant Faculty
	APP MTH 7075 Fluid Mechanics III3		special circumstances exist, the Council, on the
	ELEC ENG 7015 Adaptive Signal Processing...3		recommendation of the Faculty in each case,
	ELEC ENG 7017 Beamforming and Array		may vary any of the provisions of the Academic
	Processing3		Program Rules for any particular award.
	MECH ENG 7026 Advanced Topics in Fluid		
	Mechanics3		
	MECH ENG 7060 Mechanical Signature		
	Analysis.....3		
	Project in Marine Engineering..... 12		
	<i>either</i>		
	TECHCOMM 5021 Applied Project		
	Management 13		
	<i>or</i>		
	RMIT		
	Risk and Technology Decisions.....3		
	Curtin University		
	Marine Acoustics.....3		
e	Systems Stream		
	University of Adelaide		
	COMP SCI 7076 Distributed Systems3		
	ELEC ENG 7017 Beam Forming and Array		
	Processing3		
	ELEC ENG 7033 Principles of RF		
	Engineering.....3		
	ELEC ENG 7054 Detection, Estimation		
	and Classification3		

1 Duration of program

Except with the permission of the Faculty, the Graduate Diploma in Mathematical Sciences shall be completed in a minimum of two semesters or a maximum of eight semesters.

2 Admission

- 2.1 Except as provided for in 2.2 an applicant for admission to the program of study for the Graduate Diploma shall:
- have qualified for a degree of the University or for a degree of another institution accepted for the purpose by the University.
 - have obtained the approval of the Faculty of Engineering, Computer and Mathematical Sciences.
- 2.2 Subject to the approval of the Council the Faculty may, in special cases subject to such conditions (if any) as it may see fit to impose in each case, accept as a candidate for the Graduate Diploma a person who does not hold a degree of a university but has given evidence satisfactory to the Faculty of fitness to undertake work for the Graduate Diploma.
2. Applicants for the Graduate Diploma will be expected to have a knowledge of mathematics equivalent to that which would be obtained by passing 4 level II courses offered by the School of Mathematical Sciences (i.e. 8 units).

3 Assessment and examinations

- 3.1 There shall be four classifications of pass in each course for the Graduate Diploma: Pass with High Distinction, Pass with Distinction, Pass with Credit, and Pass.
- 3.2 A candidate shall not be eligible to attend for examination unless the prescribed work has been completed to the satisfaction of the teaching staff concerned.
- 3.3 A candidate who fails to pass in a course and desires to take the course again shall again attend lectures and satisfactorily do such written and practical work as the teaching staff concerned may prescribe, unless specifically exempted therefrom after written application to the Faculty for such exemption.
- 3.4 A candidate who has twice failed the examination in any course or division of a course may not enrol for that course again except by special permission to be obtained in writing from the Faculty and then only under such conditions as may be prescribed.
- 3.5 For the purpose of this Rule a candidate who is refused permission to sit for examination, or

who without a reason accepted by the Faculty fails to attend all or part of a final examination (or supplementary examination if granted) after remaining enrolled for at least eight teaching weeks of that semester, shall be deemed to have failed the examination.

4 Qualification requirements

- 4.1.1 The Faculty offers the Graduate Diploma in Mathematical Science as a full-time or part-time program to cater for a number of different demands:
- It is designed for graduates with some mathematical training who wish to extend their mathematical knowledge for professional (eg. teachers) or other reasons. The Graduate Diploma allows a flexible program to suit the background of the individual. Thus it may:
 - extend a modest knowledge of mathematics to say the level attained by a graduate with a degree of Bachelor of Mathematical and Computer Sciences *or*
 - at the other extreme provide a program comparable to the level of the Honours degree.
 - Graduates of a University or other institution who have an interest in proceeding to research in some area of the mathematical sciences but lack the preparation necessary may enrol for the Graduate Diploma in Mathematical Science with the view to gaining the background to begin a program at the Masters level either by coursework or by research.
- 4.1.2 Graduates wishing to enrol may consult the Program Coordinator for details of the courses offered preferably in the December of the year preceding their enrolment.
- 4.2 To qualify for the Graduate Diploma, a candidate shall satisfactorily complete work to the value of at least 24 units, of which 18 units must be from studies within Applied Mathematics, Pure Mathematics and/or Statistics. Of these 18 units at least 12 units must be chosen from the following:
- Level III courses in Applied Mathematics, Pure Mathematics and Statistics
 - Courses listed in 5.3.1(c) for the degree of Master of Mathematical Science
 - Project option.
- This option may comprise up to 6 units of the work for the award. The topics and level of such project work will be decided in consultation with a supervisor appointed by the Faculty. The project options are:

APP MTH 7085 Applied Mathematics Diploma Project	6
APP MTH 7086 Applied Mathematics Diploma Project	3
PURE MTH 7069 Pure Mathematics Diploma Project	3
PURE MTH 7070 Pure Mathematics Diploma Project	6
STATS 7071 Statistics Diploma Project	3
STATS 7074 Statistics Diploma Project	6

In addition to courses listed in (a), (b) and (c), courses may be chosen from:

- d those listed in the Calendar for any degree of the University approved for the purpose by the Faculty. Such courses must not comprise more than 8 units of Level II studies and must be approved as relevant to the program of study by the Postgraduate Coordinator.

4.3 Formal approval of enrolment must be obtained from the Program Coordinator.

4.3 Unacceptable combinations of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.4 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Graduate Diploma in Science and Technology Commercialisation

1 Duration of program

Except with the permission of the Faculty, the Graduate Diploma in Science and Technology Commercialisation shall be completed in a minimum of two semesters or a maximum of eight semesters.

2 Admission

2.1 An applicant for admission to the program for the Graduate Diploma in Science and Technology Commercialisation shall have qualified for the degree of the University or another institution accepted by the University for the purpose as equivalent, and shall have had at least 5 years approved professional work experience.

2.2 The Faculty may, subject to such conditions as it may see fit to impose in each case, accept as a candidate for the Graduate Diploma a person who does not satisfy the requirements of Rule 2.1 above but who has presented evidence satisfactory to the Faculty of fitness to undertake work for the Graduate Diploma.

2.3 Status, exemption and credit transfer

With the exception of the Graduate Certificate in Science and Technology Commercialisation (see 2.4 below), candidates who have previously passed courses in postgraduate awards or equivalent at the University of Adelaide or another university and who wish to count such courses towards the Graduate Diploma in Science and Technology Commercialisation may, on written application to the Faculty, be granted such status as the Faculty shall determine, to a maximum aggregate value of six (6) units. Courses completed more than five years prior to application to Faculty will not be considered.

2.4 Articulation with other awards

2.4.1 A candidate who has been admitted to the Graduate Certificate in Science and Technology Commercialisation and who wishes to count courses presented for the Graduate Certificate toward the Graduate Diploma must surrender the Graduate Certificate before being admitted to the Graduate Diploma in Science and Technology Commercialisation.

2.4.2 A candidate for the degree of Master, or Master (Advanced) of Science and Technology Commercialisation who satisfies the requirements for Graduate Diploma but who does not complete the requirements for the Masters degree may be admitted to the Graduate Diploma in Science and Technology Commercialisation.

3 Assessment and examinations

3.1 There shall be four classifications of pass in any course for the Graduate Diploma: Pass with High Distinction; Pass with Distinction; Pass with Credit; and Pass. The Diploma Project shall be assessed on a Satisfactory/Unsatisfactory basis.

3.2 A candidate shall not be eligible to be assessed, by examination or otherwise, unless the prescribed work has been completed to the satisfaction of the teaching staff concerned.

3.3 A candidate who fails a course and wishes to repeat that course, shall, unless exempted partially therefrom by the Faculty, again complete the required work in the course to the satisfaction of the teaching staff concerned.

3.4 A candidate who has failed a course twice may not re-enrol in that course except by special permission of the Faculty and then only under such conditions as may be prescribed.

3.5 For the purpose of this Rule, a candidate who is refused permission to sit for examination shall be deemed to have failed the examination.

4 Qualification requirements

4.1 Academic program

To qualify for the Graduate Diploma, a candidate shall satisfactorily complete courses to the value of 24 units of which at least 18 units are core courses.

4.1.1 Core courses

TECHCOMM 5001 Marketing Technological Innovation	3
TECHCOMM 5002 Managing Product Design and Development	3
TECHCOMM 5003 Strategic Analysis for Technology Commercialisation	3
TECHCOMM 5005 Financing Commercialisation	3
TECHCOMM 5006 Technology Management and Transfer	3
TECHCOMM 5007 Legal Issues of the Commercialisation Process	3
TECHCOMM 5008 Leading and Managing	3
TECHCOMM 5011 Internationalisation of Technology	3

4.1.2. Elective courses

Any postgraduate course taught by the Entrepreneurship, Commercialisation and Innovation Centre (ECIC) except for:

TECHCOMM 5025 Commercialisation: Process and Strategy.....	3
TECHCOMM 5027 Business & Project Creation	3

4.2 Unacceptable combination of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.3 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.

1 Duration of program

Except with the permission of the Faculty, the Graduate Diploma in Sciences (Defence) shall be completed in a minimum of two semesters or a maximum of eight semesters.

2 Admission requirements

- 2.1 Except as provided for in 2.2 below, an applicant for admission to the program shall:
- have qualified for a degree from the University of Adelaide (or equivalent in a discipline related to the proposed field of study *and*
 - shall have had at least 18 months' employment experience in a defence-related industry.
- 2.2 The Board of Studies may, in exceptional circumstances and subject to such conditions (if any) as it may see fit to impose, accept as a candidate for the award of Graduate Diploma in Sciences (Defence), a person who does not qualify under 2.1 above, but has given evidence satisfactory to the Board of fitness to undertake work for the degree.

2.3 Status or exemption

A candidate may not present for credit towards the award any course which has been presented as part of the requirements for any other award of this University or other institution, or which in the opinion of the Faculty is substantially similar to such course.

2.4 Articulation with other awards

- 2.4.1 A candidate who has been enrolled for the Graduate Certificate in Sciences (Defence) at the University of Adelaide and who has not been awarded the Graduate Certificate shall, on written application, be permitted to transfer all equivalent courses towards the Diploma degree.
- 2.4.2 A candidate who holds the Graduate Certificate in Sciences (Defence) from the University of Adelaide shall surrender the Graduate Certificate before being awarded the Graduate Diploma.

3 Assessment and examinations

- 3.1 There shall be four classifications of pass in any course for the Graduate Diploma in Sciences (Defence): Pass with High Distinction, Pass with Distinction, Pass with Credit, and Pass. Courses passed with a conceded pass classification may not be counted towards the requirements for the award of Graduate Diploma in Sciences (Defence).
- 3.2 A candidate shall not be eligible to attend for examination unless any prescribed coursework

has been completed to the satisfaction of the teaching staff concerned.

- 3.3 A candidate who fails in a course and desires to take the course again shall again attend the course and satisfactorily do such written and practical work as the teaching staff concerned may prescribe, unless specifically exempted therefrom after written application to the Board of Studies for such exemption.
- 3.4 A candidate who has twice failed any course may not enrol for that course again except by special permission of the Board of Studies and then only under such conditions as may be prescribed.
- 3.5 For the purpose of this Rule, a candidate who is refused permission to sit for the assessment for a given course, or who without a reason accepted by the Convenor of the Board of Studies (or nominee) fails to attend all or part of the assessment, shall be deemed to have failed that course.

4 Qualification requirements

- 4.1 To qualify for the award of Graduate Diploma in Sciences (Defence), a candidate shall satisfactorily complete courses from the following list to a total value of at least 24 units. These must include the two core courses from Group A to the value of 6 units.
- 4.2 Candidates may present courses offered by other universities from a register of approved courses maintained by the Board of Studies, but the total value of these external courses must not exceed 9 units (including the core courses in Group A). Candidates must have their proposed program of studies approved by the Convenor of the Board of Studies or nominee at enrolment.

Group A: Core courses

Both of these courses are offered by the University of South Australia:

Research Methods in a Multidisciplinary Environment.....	3
Systems Engineering for Complex Problem Solving	3

Group B: Defence technology stream

DEFSCI 7005 Principles of Control Systems.....	3
DEFSCI 7006 Antennas and Propagation.....	3
DEFSCI 7007 Principles of RF Engineering.....	3
DEFSCI 7029 Kalman Filtering and Tracking	3
DEFSCI 7035 Detection, Estimation and Classification.....	3
DEFSCI 7203 Photonics IV-D	3

DEFSCI 7204 Photonics III-D	3
DEFSCI 7206 Physical Optics III-D	3
DEFSCI 7207 Sonar Sensors and Systems.....	3

Note: special conditions apply to choosing courses with a Photonics theme. There is a preferred sequence within these courses, and candidates should seek guidance on their enrolment pattern. Electromagnetics III contains material which is assumed knowledge in the remaining courses, and should be taken by candidates without this specialist undergraduate Physics background. Further Photonics options may become available.

Group C: Information and communication technology stream

DEFSCI 7000 Cognitive Science: Minds, Brains and Computers	3
DEFSCI 7001 Decision Making in Real Environments.....	3
DEFSCI 7002 Distributed Systems	3
DEFSCI 7003 Artificial Intelligence.....	3
DEFSCI 7009 Modelling Telecommunication Traffic	3
DEFSCI 7019 Statistics in Engineering	3
DEFSCI 7022 Multimedia Communications.....	3
DEFSCI 7023 Photonics for Communications	3
DEFSCI 7028 Information Theory.....	3
DEFSCI 7035 Detection, Estimation and Classification.....	3
DEFSCI 7042 Computer Networks and Applications	3
DEFSCI 7043 Communication Networks Design...	3
DEFSCI 7044 Adaptive Business Intelligence.....	3
DEFSCI 7060 Computer Vision.....	3
DEFSCI 7061 Evolutionary Computation.....	3
DEFSCI 7063 Transform Methods & Signal Processing	3
DEFSCI 7210 Human Factors and Ergonomics	3

The availability of all elective courses is conditional on the availability of staff and facilities and sufficient enrolments.

Other relevant courses may be presented towards the requirements of the Graduate Diploma in Sciences (Defence) with the written approval of the Convenor of the Board of Studies.

4.3 Unacceptable combinations of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of Board of Studies, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.4 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the Board of Studies special circumstances exist, the Council, on the recommendation of the Board in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Graduate Diploma in Sciences (Defence Signal Information Processing)

1 Duration of program

Except with the permission of the Faculty, the Graduate Diploma in Sciences (Defence Signal Information Processing) shall be completed in a minimum of two semesters or a maximum of eight semesters.

2 Admission

2.1 Except as provided for in 2.2 an applicant for admission to the program of study for the Graduate Diploma shall have qualified for an Honours award in Mathematics, Physics or in Electrical and Electronic Engineering; or a Bachelor award that includes a major in either Mathematics or Physics, or for an equivalent degree accepted for the purpose by the University, plus some experience in the Defence industry.

2.2 The Board of Studies may, in exceptional circumstances and subject to such conditions (if any) as it may see fit to impose in each case, accept as a candidate for the degree a person who does not qualify under 2.1 but who has given evidence satisfactory to the Board of fitness to undertake work for the degree.

2.3 Articulation with other awards

2.3.1 A candidate who has been enrolled for the Graduate Certificate in Signal Information Processing at the University of Adelaide and who has not been awarded the Graduate Certificate shall, on written application, be permitted to transfer all equivalent courses towards the Graduate Diploma.

2.3.2 A candidate who holds the Graduate Certificate in Signal Information Processing from the University of Adelaide shall surrender the Graduate Certificate before being awarded the Graduate Diploma.

2.4 Credit transfer

2.4.1 No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

2.4.2 Candidates may present courses offered by other universities from a register of approved courses maintained by the Board of Studies, but the total value of these external courses must not exceed 9 units (including the core courses).

3 Assessment and examination

3.1 Academic progress

If in the opinion of the Board of Studies a candidate for the degree is not making satisfactory progress, the Faculty may terminate the candidature.

4 Qualification requirements

4.1 To qualify for the degree a candidate shall satisfactorily complete at least 24 units as defined in 4.2.

4.2 Academic program

4.2.1 The program of study and project work to the value of at least 24 units shall consist of:

i Compulsory courses*

Systems Engineering for Complex Problem Solving	3
Research Methods in a Multidisciplinary Environment	3

* Offered by the University of South Australia.

ii Courses to the value of at least 12 units selected from:

DEFSCI 7011 Adaptive Signal Processing	3
DEFSCI 7012 Multisensor Data Fusion	3
DEFSCI 7028 Information Theory	3
DEFSCI 7029 Kalman Filtering and Tracking ...	3
DEFSCI 7035 Detection, Estimation and Classification	3
DEFSCI 7036 Introduction to Discrete Linear Systems	3
DEFSCI 7041 Image Sensors & Processing ...	3

iii Courses to the value of at least 6 units selected from:

either

a courses listed in 4.2.1 (ii)

or

b from the following courses

DEFSCI 7015 Mathematical Coding & Cryptology	3
DEFSCI 7024 Specialised Studies A	3
DEFSCI 7025 Specialised Studies B	3
DEFSCI 7026 Specialised Studies C	3
DEFSCI 7030 Error Control Coding	3
DEFSCI 7031 Mobile Communications	3

DEFSCI 7037 Signal Synthesis and Analysis*	3
DEFSCI 7038 Specialised Studies D#	3
DEFSCI 7039 Satellite Communications.....	3
DEFSCI 7060 Computer Vision	3
DEFSCI 7063 Transform Methods and Signal Processing*	3

* DEFSCI 7037 and 7063 cannot both be presented.

Specialised Studies may consist of directed readings or approved short courses as approved by the Faculty. The content and assessment of these courses will be determined in each case by the academic coordinator of the course in consultation with the student's supervisor and the student.

- c other relevant courses as approved by the Board of Studies from other postgraduate programs of the University.

- 4.2.2 Students who are required to undertake preliminary work will normally enrol in one of the following courses:

SIP 7027 A/B Qualifying Studies in Mathematics Part 1 & 2	12
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SIP 7028 Qualifying Studies in Mathematics	12
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On satisfactory completion of this work the student will proceed to study as outlined in 4.2.1 above.

- 4.2.3 Candidates who are granted exemption from one or more of the courses listed in 4.2.1 (ii) on the basis of previous studies may select in their place other relevant courses offered by the University of Adelaide or other tertiary institutions in South Australia as may be approved by the Board of Studies.

- 4.2.4 The availability of all courses is conditional on there being adequate staffing and resources.

4.3 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the Board of Studies special circumstances exist, the Board in each case may vary any of the provisions of the Academic Program Rules for any particular award.



Graduate Diploma in Water Resources Management

1 Duration of program

Except with the permission of the Faculty, the Graduate Diploma in Water Resources Management shall be completed in a minimum of two semesters or a maximum of eight semesters.

2 Admission

2.1 Except as provided for in 2.2 below, an applicant for admission to the program shall have qualified for:

- a a Bachelor degree either form, or accepted by the University of Adelaide or equivalent in a discipline related to the proposed field of study *or*
- b a Bachelor degree either from or accepted by the University of Adelaide as equivalent, in a non-related discipline and have relevant professional work experience to an approved level as assessed at the discretion of the Faculty.

2.2 The Faculty may, in exceptional circumstances and subject to such conditions (if any) as it may see fit to impose, accept as a candidate for the degree of Graduate Diploma in Water Resources Management, a person who does not qualify in 2.1 above, but has given evidence satisfactory to the Faculty of fitness to undertake work for the degree.

2.3 Articulation with other awards

2.3.1 A candidate who has been enrolled for the Graduate Certificate in Water Resources Management at the University of Adelaide and who has not been awarded the Graduate Certificate shall, on written application, be given consideration by the Faculty to transfer all equivalent courses towards the Graduate Diploma.

2.3.2 A candidate who holds the Graduate Certificate in Water Resources Management from the University of Adelaide shall surrender the Graduate Certificate before being awarded the Graduate Diploma.

2.4 Status or exemption

Candidates who have previously passed courses in other postgraduate awards at the University of Adelaide or another university and who wish to count such courses towards the degree may, on written application to the Faculty, be granted such status as the Faculty shall determine, to a maximum aggregate value of six (6) units. No such status will be granted for courses in 4.3 (a).

However, candidates may, on written application to the Faculty, be granted permission to substitute courses listed in 4.3 (a) with elective courses to a maximum aggregate value of six (6) units.

3 Assessment and examinations

3.1 There shall be four classifications of pass in any course for the Graduate Diploma in Water Resources Management: Pass with High Distinction, Pass with Distinction, Pass with Credit, and Pass. Courses passed with a Conceded Pass classification may not be counted towards the requirements for the degree of Graduate Diploma in Water Resources Management.

3.2 A candidate shall not be eligible to attend for examination unless any prescribed coursework has been completed to the satisfaction of the teaching staff concerned.

3.3 A candidate who fails in a course and desires to take the course again shall again attend the course and satisfactorily do such written and practical work as the teaching staff concerned may prescribe, unless specifically exempted therefrom after written application to the Faculty for such exemption.

3.4 A candidate who has twice failed any course may not enrol for that course again except by special permission of the Faculty and then only under such conditions as may be prescribed.

3.5 For the purpose of this Rule, a candidate who is refused permission to sit for the assessment for a given course, or who without a reason accepted by the Executive Dean of the Faculty (or nominee) fails to attend all or part of the assessment, shall be deemed to have failed that course.

4 Qualification requirements

4.1 To qualify for the degree of Graduate Diploma in Water Resources Management, a candidate shall satisfactorily complete studies to a total value of at least 24 units comprising 12 units of core courses and 12 units of electives as at 4.3.

4.2 At least 12 units of study must be undertaken from courses offered by the University of Adelaide.

Candidates must have their program of studies approved by the Postgraduate Coordinator or nominee at enrolment.

4.3 Academic program

Core courses

A candidate shall complete satisfactorily each of the following:

WRM 7000 Global Water Systems I (Natural Water Cycle).....	3
WRM 7002 Global Water Systems II (Engineered Water Cycle).....	3
WRM 7003 Water Resources and Society.....	3
WRM 7004 Water Resources Planning & Management	3

Electives

A candidate shall complete satisfactorily four of the following courses (12 units) with at least three courses (9 units) taken from one of the streams:

Management of Water Infrastructure

University of Adelaide

WRM 7011 Environmental Modelling, Management and Design.....	3
WRM 7012 Water Resources Optimisation and Modelling.....	3
WRM 7013 Water Distribution Systems & Design.....	3
WRM 7014 Coastal Engineering and Design.....	3
WRM 7021 GIS for Environmental Management.....	3
WRM 7022 Analysis of Rivers & Sediment Transport.....	3
WRM 7023 Water Resources Sustainability & Design.....	3

University of South Australia

BUSS 5256 Strategic Asset Management.....	3
BUIL 5017 Facilities and Asset Performance.....	3
BUIL 5018 Facilities Program Management.....	3
BUIL 5019 Asset management Service Delivery....	3
BUIL 5020 Sustainability in Assets and Facilities ...	3
BUIL 5022 Engineering Infrastructure Management	3
GEOE 5001 Introduction Geographic Information Systems	3

Deakin University

SEN724 Water Resources Systems Analysis.....	3
SEN743 Water Resources Engineering.....	3
SEN744 Environmental Systems.....	3
SEV710 Risk and Environmental Sustainability.....	3
SEN714 Coastal Engineering Management.....	3

Central Queensland University

ENMM20010 Introduction to Maintenance Engineering.....	3
ENMM 20011 Establishing the Maintenance Strategy.....	3

ENMM20012 Maintenance Organisations.....	3
ENMM20013 Maintenance Systems and Documentation	3
ENMM 20015 Auditing Maintenance Systems.....	3

Ecosystem and Catchment Management

University of Adelaide

WRM 7021 GIS for Environmental Management...3	
WRM 7024 Freshwater Ecology.....	3
WRM 7025 Ecosystems Modelling for Environmental Management	3
WRM 7026 Integrated Catchment Management .	3

Deakin University

SEV710 Risk and Environmental Sustainability
SQE718 Integrated Catchment Management: Concepts, Principles and Planning
SQE719 Integrated Catchment Management: Practical Tools for Assessment and Implementation
SQE720 Aquatic Ecosystems Management and Rehabilitation

Central Queensland University

EVST20003 Environmental Risk Management
EVST20012 Water Management 1

Water Quality and Treatment

University of Adelaide

WRM 7010 Wastewater Engineering & Design	3
WRM 7011 Environmental Modelling, Management and Design.....	3
WRM 7013 Water Distribution Systems and Design.....	3

University of South Australia

CIVE 5048 Advanced Water Quality and Wastewater Management
CIVE 5065 Design of Flood and Drainage Systems
CIVE 5066 Water Quality Modelling
CIVE 5067 Water Quality Management
CHEM 5007 Water Quality Fundamentals & Processes N

Deakin University

SEN711 Environmental Systems Design
SEN740 Water Treatment Processes
SEN741 Wastewater Treatment Processes
SEN745 Water Reclamation and Reuse

The following streams are not offered at the University of Adelaide:

Groundwater Hydrology/Hydrogeology
Irrigation
Water Planning

Unstreamed Electives

WRM 7015 Epidemiology of Infectious Diseases	3
WRM 7017 Biostatistics	3
WRM 7018 Epidemiological Research Methods ..	3
WRM 7020 Industrial Toxicology.....	3

Other courses

With permission from the Faculty, the following course may be presented in lieu of an elective course:

WRM 7007 Research Methodology.....	3
WRM 7009 Specialised Studies I.....	3

Note: this course is a prerequisite for Projects available in the Master of Water Resources Management.

Other relevant courses may be presented towards the requirements of the degree with the approval of the Faculty.

4.4 Unacceptable combination of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.5 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Master of Applied Innovation and Entrepreneurship

1 Duration of program

Except with the permission of the Faculty, the Master of Applied Innovation and Entrepreneurship shall be completed in a minimum of four semesters or a maximum of eight semesters.

2 Admission

2.1 Except as provided for in 2.2 below, a candidate for admission to the program of study for the Master of Applied Innovation and Entrepreneurship shall have qualified for a degree of the University or another institution accepted by the University for the purpose as equivalent, shall have had at least 5 years approved professional work experience.

2.2 The Faculty may, in special cases and subject to such conditions (if any) as it may see fit to impose in each case, accept as a candidate for the degree a person who does not qualify for admission to the program under 2.1 above but has given evidence satisfactory to the Faculty of fitness to undertake work for the degree.

2.3 Status, exemption and credit transfer

With the exception of the Graduate Diploma in Innovation and Entrepreneurship (see 2.4 below), candidates who have previously passed courses in postgraduate awards or equivalent at the University of Adelaide or another university and who wish to count such courses towards the Master of Applied Innovation and Entrepreneurship may, on written application to the Faculty, be granted such status as the Faculty shall determine, to a maximum aggregate value of twelve (12) units. Courses completed more than ten years prior to application to Faculty will not be considered.

2.4 Articulation with other awards

A candidate who has been admitted to the Graduate Certificate or the Graduate Diploma in Innovation and Entrepreneurship, or the Graduate Certificate in Social Entrepreneurship, and who subsequently satisfies the requirements for the Master of Applied Innovation and Entrepreneurship must surrender the Graduate Certificate or the Graduate Diploma before being admitted to the Masters degree.

3 Assessment and examinations

3.1 There shall be four classifications of pass in each course for the Graduate Diploma: Pass with High Distinction, Pass with Distinction, Pass with Credit and Pass.

3.2 A candidate shall not be eligible to attend for examination unless the prescribed work has been completed to the satisfaction of the teaching staff concerned.

3.3 A candidate who fails to pass in a course and desires to take the course again shall again undertake study and satisfactorily do such written and practical work as the teaching staff concerned may prescribe, unless specifically exempted therefrom after written application to the Faculty for such exemption.

3.4 A candidate who has twice failed the examination in any course or division of a course may not enrol for the course again except by special permission of the Faculty and then only under such conditions as may be prescribed.

3.5 For the purpose of this Rule, a candidate who is refused permission to sit for examination, or who fails to attend all or part of a final examination (or supplementary examination if granted) after being enrolled for at least two thirds of the normal period during which the course is taught, shall be deemed to have failed the examination.

4 Qualification requirements

4.1 To qualify for the Master of Applied Innovation and Entrepreneurship, a candidate shall satisfactorily complete courses to the total value of 36 units, consisting of:

- a 27 units of coursework of which 18 units are core courses and 9 units are electives selected from the list below *and*
- b a 9-unit project as set out under 4.1.2 below.

4.1.1 Core courses

TECHCOMM 5001 Marketing Technology and Innovation	3
TECHCOMM 5016 Entrepreneurship and Innovation	3
TECHCOMM 5015 Project and Innovation Finance and Accounting	3
TECHCOMM 5018 Opportunity Assessment	3
TECHCOMM 7022 Creativity and Innovation.....	3
TECHCOMM 7028 Managing Strategy and Growth.....	3

4.1.2 Masters project

TECHCOMM 5028 A/B Project in Entrepreneurship	9
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4.1.3 Elective courses

TECHCOMM 5002 Managing Product Design and Development	3
TECHCOMM 5003 Strategic Analysis for Technology Commercialisation	3
TECHCOMM 5004 Managing Risk.....	3
TECHCOMM 5005 Financing Commercialisation .	3
TECHCOMM 5006 Technology Management and Transfer	3
TECHCOMM 5007 Legal Issues of the Commercialisation Process	3
TECHCOMM 5008 Leading and Managing.....	3
TECHCOMM 5011 Internationalisation of Technology.....	3
TECHCOMM 5021 Applied Project Management I	3
TECHCOMM 7012 Business and Contract Legal Studies	3
TECHCOMM 7014 Social Venture Funding.....	3
TECHCOMM 7019 Social Entrepreneurship	3

4.2 Unacceptable combination of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.3 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Master of Applied Innovation and Entrepreneurship (Advanced)

1 Duration of program

Except with the permission of the Faculty, the Master of Applied Innovation and Entrepreneurship (Advanced) shall be completed in a minimum of four semesters or a maximum of ten semesters.

2 Admission

2.1 Except as provided for in 2.2 below, a candidate for admission to the program of study for the Master of Applied Innovation and Entrepreneurship (Advanced) shall have qualified for a degree of the University or another institution accepted by the University or another institution accepted by the University for the purpose as equivalent, shall have had at least 5 years approved professional work experience.

2.2 The Faculty may, in special cases and subject to such conditions (if any) as it may see fit to impose in each case, accept as a candidate for the degree a person who does not qualify for admission to the program under 2.1 above but has given evidence satisfactory to the Faculty of fitness to undertake work for the degree.

2.3 Status, exemption and credit transfer

With the exception of the Graduate Diploma and Master of Applied Innovation and Entrepreneurship (see 2.4 below), candidates who have previously passed courses in postgraduate awards or equivalent at the University of Adelaide or another university and who wish to count such courses towards the Master of Applied Innovation and Entrepreneurship (Advanced) may, on written application to the Faculty, be granted such status as the Faculty shall determine, to a maximum aggregate value of twelve (12) units. Courses completed more than ten years prior to application to Faculty will not be considered.

2.4 Articulation with other awards

A candidate who has been admitted to the Graduate Certificate or the Graduate Diploma, or the Master of Applied Innovation and Entrepreneurship, or the Graduate Certificate in Social Entrepreneurship, and who subsequently satisfies the requirements for the Master of Applied Innovation and Entrepreneurship (Advanced) must surrender the Graduate Certificate or the Graduate Diploma, or the Masters before being admitted to the Masters (Advanced) degree.

3 Assessment and examinations

3.1 There shall be four classifications of pass in each course for the Graduate Diploma: Pass with High

Distinction, Pass with Distinction, Pass with Credit and Pass.

3.2 A candidate shall not be eligible to attend for examination unless the prescribed work has been completed to the satisfaction of the teaching staff concerned.

3.3 A candidate who fails to pass in a course and desires to take the course again shall again undertake study and satisfactorily do such written and practical work as the teaching staff concerned may prescribe, unless specifically exempted therefrom after written application to the Faculty for such exemption.

3.4 A candidate who has twice failed the examination in any course or division of a course may not enrol for the course again except by special permission of the Faculty and then only under such conditions as may be prescribed.

3.5 For the purpose of this Rule, a candidate who is refused permission to sit for examination, or who fails to attend all or part of a final examination (or supplementary examination if granted) after being enrolled for at least two thirds of the normal period during which the course is taught, shall be deemed to have failed the examination.

4 Qualification requirements

4.1 To qualify for the Master of Applied Innovation and Entrepreneurship (Advanced), a candidate shall satisfactorily complete courses to the total value of 48 units, consisting of:

- a 39 units of coursework of which 24 units are core courses and 15 units are electives selected from the list below
- b a 9-unit project as set out under 4.1.2 below.

4.1.1 Core courses

TECHCOMM 5001 Marketing Technology and Innovation	3
TECHCOMM 5004 Managing Risk.....	3
TECHCOMM 5008 Leading and Managing.....	
TECHCOMM 5016 Entrepreneurship and Innovation	3
TECHCOMM 5015Project and Innovation Finance and Accounting	3
TECHCOMM 5018 Opportunity Assessment	3
TECHCOMM 7022 Creativity and Innovation.....	3
TECHCOMM 7028 Managing Strategy and Growth	3

4.1.2 Masters project

TECHCOMM 5028 A/B Project in Entrepreneurship.....	9
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4.1.3 Elective courses

TECHCOMM 5002 Managing Product Design and Development	3
TECHCOMM 5003 Strategic Analysis for Technology Commercialisation	3
TECHCOMM 5005 Financing Commercialisation .	3
TECHCOMM 5006 Technology Management and Transfer	3
TECHCOMM 5007 Legal Issues of the Commercialisation Process	3
TECHCOMM 5011 Internationalisation of Technology	3
TECHCOMM 5021 Applied Project Management I	3
TECHCOMM 7012 Business and Contract Legal Studies	3
TECHCOMM 7014 Social Venture Funding.....	3
TECHCOMM 7019 Social Entrepreneurship	3

4.2 Unacceptable combination of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.3 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award

Graduate Attributes

Postgraduate programs in Applied Innovation and Entrepreneurship

- Internationally recognised and advanced levels of knowledge and understanding of the process and techniques involved in assessing and transforming ideas into innovation opportunities and new ventures
- An ability to locate, analyse, evaluate, and synthesise information from a wide variety of sources in a planned and timely manner to facilitate the assessment and transformation of ideas into innovation opportunities and new ventures
- An ability to apply effective, creative and innovative solutions, both independently and cooperatively, to current and future innovation and entrepreneurship issues, problems and concerns encountered by communities and throughout the new venture process
- Skills of a high order in interpersonal understanding, teamwork and communication in facilitating and implementing innovation and new venture processes
- A commitment to continuous learning and the capacity to maintain intellectual curiosity throughout life that emerges innovation and entrepreneurship opportunities
- A commitment to the highest standards of professional endeavour and the ability to take a leadership role in the community in pursuing the creation, implementation and growth of innovation and entrepreneurship opportunities
- An awareness of ethical, social and cultural issues encountered in engaging with innovation and entrepreneurship within the global context and the importance of exercising professional skills and responsibilities in dealing with social and cultural issues.

1 Duration of program

Except with the permission of the Faculty, the Master of Applied Project Management shall be completed in a minimum of four semesters or a maximum of eight semesters.

2 Admission

2.1 An applicant for admission to the academic program for the Master Of Applied Project Management shall have qualified for a degree of the University or a degree of another institution accepted by the Faculty for the purpose as equivalent to a degree of the University, provided that:

- (a) in the case of an undergraduate degree of 4 years duration, or equivalent, no industrial experience will be required
- (b) in the case of an undergraduate degree of 3 years duration, or equivalent, an additional 3 years of relevant industrial experience will be required.

2.2 The Faculty may, subject to such conditions as it may see fit to impose in each case, accept as a candidate for the Master Of Applied Project Management, a person who does not satisfy the requirements of Rule 2.1 above but who has presented evidence satisfactory to the Faculty of fitness to undertake work for Master Of Applied Project Management.

2.3 Status, exemption and credit transfer

Candidates who have previously passed courses in postgraduate awards or equivalent at the University of Adelaide or another university and who wish to count such courses towards the Master Of Applied Project Management may, on written application to the Faculty, be granted such status as the Faculty shall determine, to a maximum aggregate value of twelve (12) units.

2.4 Articulation with other awards

2.4.1 A candidate for the Master Of Applied Project Management who does not complete the requirements for the Master Of Applied Project Management degree but satisfies the requirements for the Graduate Certificate or the Master of Project Management may be admitted to that degree as appropriate.

2.4.2 A candidate who has been admitted to the Graduate Certificate or the Master of Project Management, and who subsequently satisfies the requirements for the Master of Applied Project Management must surrender the Graduate Certificate or the Master of Project Management

before being admitted to the Master of Applied Project Management.

3 Assessment and examinations

3.1 There shall be four classifications of pass in any course for the Graduate Certificate: Pass with High Distinction; Pass with Distinction; Pass with Credit; and Pass.

3.2 A candidate shall not be eligible to be assessed, by examination or otherwise, unless the prescribed work has been completed to the satisfaction of the teaching staff concerned.

3.3 A candidate who fails a course and wishes to repeat that course shall, unless exempted partially there from by the Faculty, again complete the required work in the course to the satisfaction of the teaching staff concerned.

3.4 A candidate who has failed a course twice may not re-enrol in that course except by special permission of the Faculty and then only under such conditions as may be prescribed.

3.5 For the purpose of this Rule, a candidate who is refused permission to sit for examination shall be deemed to have failed the assessment.

4 Qualification requirements

4.1 To qualify for the Master of Applied Project Management, a candidate shall satisfactorily complete 36 units, comprising core courses to the value of at least 30 units and up to 6 units of elective courses:

4.1.1 Core courses

TECHCOMM 5004 Managing Risk.....	3
TECHCOMM 5014 Project and Management Techniques.....	3
TECHCOMM 5015 Project Finance and Accounting*	3
TECHCOMM 5021 Applied Project Management 1	3
TECHCOMM 5026 Applied Project Management 2	3
<i>or</i>	
TECHCOMM 5013 Systems Engineering	3
TECHCOMM 7012 Business and Contract Management Legal Studies	3
Plus at least 12 units of core courses from one of the following plans :	

Defence

TECHCOMM 5010 Technology Project Management 1	3
TECHCOMM 5013 Systems Engineering I	3
TECHCOMM 7024 Complex Project Management 1	3
TECHCOMM 7030 Logistics and Supply Chain Management	3

or

Management of Climate Change

TECHCOMM 7023 Carbon Impact and Strategy ..	3
TECHCOMM 7024 Complex Project Management I	3
TECHCOMM 7025 Introduction to Climate Change	3
TECHCOMM 7033 Ongoing Carbon Management	3

or

Mining

GEOLOGY 7002 Minerals Exploration	3
TECHCOMM 7031 Introduction to Minerals Processing	3
TECHCOMM 7032 Mine Financing & Valuation	3
TECHCOMM 7034 Mine Management & Safety ..	3
TECHCOMM 7035 Socio-Environmental Aspects of Mining	3

*Students in the Mining stream are required to complete Mine Financing and Valuation in lieu of Project and Innovation Finance and Accounting.

4.1.2 Elective courses

Any postgraduate courses, up to the value of 6 units, taught by Entrepreneurship, Innovation and Commercialisation Centre (ECIC).

4.2 Unacceptable combinations of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.3 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award

Master of Applied Project Management (Advanced)

1 Duration of program

Except with the permission of the Faculty, the Master of Applied Project Management (Advanced) shall be completed in a minimum of four semesters or a maximum of ten semesters.

2 Admission

2.1 An applicant for admission to the academic program for the Master of Applied Project Management (Advanced) shall have qualified for a degree of the University or a degree of another institution accepted by the Faculty for the purpose as equivalent to a degree of the University, provided that:

- (a) in the case of an undergraduate degree of 4 years duration, or equivalent, no industrial experience will be required
- (b) in the case of an undergraduate degree of 3 years duration, or equivalent, an additional 3 years of relevant industrial experience will be required.

2.2 The Faculty may, subject to such conditions as it may see fit to impose in each case, accept as a candidate for the Master of Applied Project Management (Advanced), a person who does not satisfy the requirements of Rule 1 above but who has presented evidence satisfactory to the Faculty of fitness to undertake work for Master of Applied Project Management (Advanced).

2.3 Status, exemption and credit transfer

With the exception of the Graduate Certificate, the Master of Project Management, and the Master of Applied Project Management, candidates who have previously passed courses in postgraduate awards or equivalent at the University of Adelaide or another university and who wish to count such courses towards the Master of Applied Project Management (Advanced) may, on written application to the Faculty, be granted such status as the Faculty shall determine, to a maximum aggregate value of twelve (12) units. Courses completed more than ten years prior to application to Faculty will not be considered.

2.4 Articulation with other awards

2.4.1 A candidate for the Master of Applied Project Management (Advanced) who does not complete the requirements for the Master of Applied Project Management (Advanced) degree but satisfies the requirements for the Graduate Certificate or the Master of Project Management or the Master of Applied Project Management may be admitted to that degree as appropriate.

2.4.2 A candidate who has been admitted to the Graduate Certificate or the Master of Project Management, or the Master of Applied Project Management and who subsequently satisfies the requirements for the Master of Applied Project Management (Advanced) must surrender the Graduate Certificate or the Master of Project Management or the Master of Applied Project Management before being admitted to the Master of Applied Project Management (Advanced).

3 Assessment and examinations

3.1 There shall be four classifications of pass in any course for the Graduate Certificate: Pass with High Distinction; Pass with Distinction; Pass with Credit; and Pass.

3.2 A candidate shall not be eligible to be assessed, by examination or otherwise, unless the prescribed work has been completed to the satisfaction of the teaching staff concerned.

3.3 A candidate who fails a course and wishes to repeat that course shall, unless exempted partially there from by the Faculty, again complete the required work in the course to the satisfaction of the teaching staff concerned.

3.4 A candidate who has failed a course twice may not re-enrol in that course except by special permission of the Faculty and then only under such conditions as may be prescribed.

3.5 For the purpose of this Rule, a candidate who is refused permission to sit for examination shall be deemed to have failed the assessment.

4 Qualification requirements

4.1 To qualify for the Master of Applied Project Management (Advanced), a candidate shall satisfactorily complete 48 units, comprising core courses to the value of at least 30 units, up to 6 units of elective courses, and a project:

4.1.1 Core courses

TECHCOMM 5004 Managing Risk.....	3
TECHCOMM 5014 Project and Management Techniques.....	3
TECHCOMM 5015 Project Finance and Accounting*.....	3
TECHCOMM 5021 Applied Project Management 1	3
TECHCOMM 5026 Applied Project Management 2	3
or	
TECHCOMM 5013 Systems Engineering	3

TECHCOMM 7012 Business and Contract Management Legal Studies3
 Plus at least 12 units of core courses from one of the following plans :

Defence

TECHCOMM 5010 Technology Project Management 13
 TECHCOMM 5013 Systems Engineering I3
 TECHCOMM 7024 Complex Project Management 13
 TECHCOMM 7030 Logistics and Supply Chain Management3

or

Management of Climate Change

TECHCOMM 7023 Carbon Impact and Strategy ..3
 TECHCOMM 7024 Complex Project Management 13
 TECHCOMM 7025 Introduction to Climate Change3
 TECHCOMM 7033 Ongoing Carbon Management3

or

Mining

GEOLOGY 7002 Minerals Exploration.....3
 TECHCOMM 7031 Introduction to Minerals Processing3
 TECHCOMM 7032 Mine Financing & Valuation3
 TECHCOMM 7034 Mine Management & Safety ..3
 TECHCOMM 7035 Socio-Environmental Aspects of Mining.....3

Plus

TECHCOMM 7009 Applied Project Management Project 12

*Students in the Mining stream are required to complete Mine Financing and Valuation in lieu of Project and Innovation Finance and Accounting.

4.1.2 Elective courses

Any postgraduate courses, up to the value of 6 units, taught by Entrepreneurship, Innovation and Commercialisation Centre (ECIC).

4.1.3 Supervised project work

TECHCOMM 7009 Applied Project Management Project 12

4.2 Unacceptable combinations of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.3 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.

Graduate Attributes

Master of Applied Project Management

Master of Applied Project Management (Advanced)

- Knowledge and understanding of the content and techniques of project management at advanced levels, which are internationally recognised - this is achieved through use of the PMBOK model, which originates from the Project Management Institute of the USA.
- The ability to locate, analyse, evaluate and synthesise information from a wide variety of sources in a planned and timely manner - the course notes are structured to achieve this.
- The ability to apply effective, creative and innovative solutions, both independently and cooperatively, to current and future problems - again course notes are structured to achieve this and the Business and Project Creation Courses and 12 Unit Project in Project Management aim at innovation.
- Skills of a high order in interpersonal understanding, teamwork and communication - professionally recognised skills are an objective of the program; groupwork is an integral component.
- A proficiency in the appropriate use of contemporary technologies – course remains contemporary through regular review.
- A commitment to continuous learning and the capacity to maintain intellectual curiosity throughout life - self-learning is a requirement of many courses.
- A commitment to the highest standards of professional endeavour and the ability to take a leadership role in the community - leadership is a separate course and leadership is emphasised in many other courses .
- An awareness of ethical, social and cultural issues and their importance in the exercise of professional skills and responsibilities - ethics and social responsibility are addressed in Applied Project Management 1, Business and Contract Legal Studies, Applied Project Management 2, Mine Management and Safety and Socio-Environmental Aspects of Mining.
- Ability to do research appropriate for an applied research project.

These graduate attributes will be maintained for the 48 unit MAPM (Adv) . However the following will be added for the specialisations:

- Defence: Recognition of the role of peace and stability in the development of the communities and nations.
- Management of Climate Change: Support maintenance of stability in the business response to forces of change
- Mining: Recognition of possible conflicts between mining interests and those of the community and traditional owners of land, and skills in resolving these conflicts with equity, empathy and compassion.



1 General

This document must be read in conjunction with:

- a the General Academic Program Rules for Master by Research Programs (see under Adelaide Graduate Centre, p.18) *and*
- b the Research Student Handbook, published by the Adelaide Graduate Centre.

These documents explain procedures to be followed and contain guidelines on supervision and research for the degree of Doctor of Philosophy and the various Masters Degrees by Research, offered by the University.

All students must comply with both the General Academic Rules and the rules following below, and procedures outlined in the Research Student Handbook.

In addition to the General Academic Program Rules for Masters by Research degrees, in this publication, the following discipline specific rules apply.

2 Admission

- 2.1 In addition to General Academic Program Rule 4.1 on Admission, applicants for admission to candidature for the Master of Applied Science must hold:

- a an Honours degree of Bachelor of Science, Applied Science or Agricultural Science *or*
- b a qualification accepted by the Research Education and Development Committee as being equivalent to the Honours degree of Bachelor of Science, Applied Science or Agricultural Science *or*
- c a degree of Bachelor of Science, Applied Science or Agricultural Science or a qualification accepted by the Committee as being equivalent. Candidates admitted under this Rule may not be awarded the degree before the expiration of two years from the date of qualification for candidature and will be required to undertake qualifying work as specified in General Program Rule 5.2.

2.2 Mode of study

Further to General Academic Program Rule 7.1, subject to such conditions as it may determine in each case, the Research Education and Development Committee may permit project work to be undertaken outside the University provided that it can be satisfied:

- a that this will result in mutual academic benefit to the candidate and the candidate's supervising school

- b that there will be adequate contact and interaction between the candidate and the candidate's supervising school *and*
- c that the supervisor's access to any experimental work, the candidate's availability for seminars and other discussions, and the publication of results will not thereby be prejudiced.

2.3 Program of study

In addition to General Academic Program Rule 19.1, a program of study for the Master of Applied Science may contain a combination of coursework and project work. Currently two options are offered.

To qualify for the degree, a candidate shall satisfactorily complete a program of study consisting of one of the following approved options:

- a an all-research work program comprising Supervised Project Work to be completed and the thesis submitted not less than one year full-time equivalent or more than two years full-time equivalent from the date of commencement of candidature *or*
- b a three-quarters research program comprising coursework to the value of 12 units and Supervised Project Work. All coursework is to be completed and the thesis submitted not less than one year full-time equivalent or more than two years full-time equivalent from the date of commencement of candidature.

2.4 Classification of courses

Courses forming part of any coursework component for the degree shall be classified as follows:

Group A: Postgraduate courses

These are courses offered at a postgraduate level either in the Faculty of Engineering, Computer and Mathematical Sciences, in another faculty or school, or at another Institution. These include postgraduate courses in the Faculty of Engineering, Computer and Mathematical Sciences, Honours and approved postgraduate diploma courses in the Faculty of Sciences and postgraduate courses at Flinders University or the University of South Australia.

Group B: Advanced level courses

These are courses in Engineering which have been designated as 'Advanced Level' by the School concerned. They are courses which reach an advanced level of expertise in the course material. Subject to the approval of the Faculty, courses from outside Engineering may also be included in this category.

Group C: Ordinary level courses

These are courses at either Level III or Level IV in the Faculty of Engineering, Computer and Mathematical Sciences which are not designated 'Advanced Level', or courses at Level III in the Faculty of Sciences, or approved final year undergraduate courses from other Faculties or institutions.

2.5 Coursework requirements

2.5.1 A candidate seeking to enrol in a program of study with a coursework component shall, after consulting the Head of the school (or nominee) in which the majority of the candidate's work falls, submit the proposed program to the Faculty for approval.

2.5.2 The program for a three-quarters research and one-quarter coursework degree may not contain more than a total of 6 units of courses from Groups B and C and may not contain more than 6 units of courses from outside the discipline of Engineering.

For the purposes of this policy, the discipline of Engineering is deemed to include all Centres and joint ventures of which the discipline, or its constituent schools, is a formal partner.

2.5.3 There shall be four classifications of pass in each course for the Master of Applied Science: Pass with High Distinction, Pass with Distinction, Pass with Credit, and Pass. If a course has a Conceded Pass classification for the purpose of another award, any such course passed with this classification shall not count towards the requirements for the degree of Master of Applied Science.

2.5.4 A course shall be eligible to be counted for credit towards the coursework requirements of the degree if:

- a in Groups A and B the grade obtained is at Pass standard (50%) or higher
- b in Group C the grade obtained is 60% or higher.

2.5.5 To satisfy the coursework requirements of the degree, a candidate must obtain a weighted average, taken over the best results in eligible courses which together amount to the required number of units, of at least 55%.

2.5.6 Courses which have been presented as part of the requirements for any other award of this University or other institution or courses which in the opinion of the Faculty are substantially similar to such courses, will not be permitted to count for credit towards the coursework requirements of this degree.

2.6 Program of study

The program of study for the Master of Applied Science is the same as for the Master of Engineering Science.



1 Duration of program

Except with the permission of the Faculty, the Master of Computer Science shall be completed in a minimum of four semesters or a maximum of sixteen semesters.

2 Admission

2.1 The Faculty may accept as a candidate for the degree any person who has completed one of the following at the University of Adelaide:

Graduate Diploma in Computer Science

Bachelor degree that includes a major in Computer Science

Bachelor of Engineering (Computer Systems Engineering)

Bachelor of Engineering (Software Engineering)

Bachelor of Engineering (Telecommunications Engineering)

2.2 The Faculty may accept as a candidate for the degree any person who has completed studies at another institution where those studies are accepted by the University as equivalent to studies specified in 2.1 above.

2.3 The Faculty may, in exceptional circumstances and subject to such conditions (if any) as it may see fit to impose in each case, accept as a candidate for the degree a person who does not qualify under 2.1, but who has given evidence satisfactory to the Faculty of fitness to undertake work for the degree.

3 Assessment and examination

3.1 Academic progress

If in the opinion of the Faculty a candidate for the degree is not making satisfactory progress, the Faculty may, with the consent of the Council, terminate the candidature and the candidate shall cease to be enrolled for the degree.

4 Qualification requirements

4.1 To qualify for the degree a candidate shall:

- a satisfy examiners in courses of study as prescribed in the Academic Program Rules
- b comply with conditions as prescribed in the Academic Program Rules *and*
- c present a satisfactory written report and public presentations on a supervised project on a course approved by the School of Computer Science.

4.2 Academic program

Note: intending students should consult the School of Computer Science early in the year in which they plan to study in order to ascertain whether particular courses will be available in that year, in which semester they will be taught and their precise content.

4.2.1 A candidate for the degree shall complete satisfactorily a total of at least 48 units.

4.2.2 A candidate for the degree shall regularly attend lectures and tutorials, do such written and practical work as may be prescribed, and pass examinations in at least 33 units of non-project courses offered by the School of Computer Science at the Honours or Masters level. Other courses may be included, subject to the approval of the Head of the School.

a The courses presented must include:

COMP SCI 7007 Specialised Programming....3

COMP SCI 7095A/B Master of Computer Science Research Project..... 15

The requirements of this clause may be waived by the Head of School on a case-by-case basis.

b Courses listed in clause 4.1.1 of the Academic Program Rules for the Graduate Diploma in Computer Science may not be presented.

c A maximum of 12 units of courses listed in clause 4.1.2 of the Academic Program Rules for the Graduate Diploma in Computer Science may be presented for the degree.

4.2.3 The Faculty may grant status of up to the value of 24 units for relevant studies undertaken within an Honours or Masters degree at the University of Adelaide, or within an equivalent degree of another tertiary institution. These candidates will still need to present a minimum of 24 units towards the Master of Computer Science that have not been presented for any other degree.

4.3 Unacceptable combinations of courses

Subject to 4.2.3 no candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.4 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Master of Computing and Innovation

1 Duration of program

Except with the permission of the Faculty, the Master of Computing and Innovation Science shall be completed in a minimum of four semesters or a maximum of sixteen semesters.

2 Admission

- 2.1 The Faculty may accept as a candidate for the degree any person who has completed a bachelor degree either from, or accepted by the University of Adelaide as equivalent
- 2.2 The Faculty may, in exceptional circumstances and subject to such conditions (if any) as it may see fit to impose in each case, accept as a candidate for the degree a person who does not qualify under 2.1, but who has given evidence satisfactory to the Faculty of fitness to undertake work for the degree.

3 Assessment and examination

3.1 Review of academic progress

If in the opinion of the Faculty a candidate for the degree is not making satisfactory progress, the Faculty may, with the consent of the Council, terminate the candidature and the candidate shall cease to be enrolled for the degree.

4 Qualification requirements

- 4.1 To qualify for the degree a candidate shall:
 - a satisfy examiners in courses of study as prescribed in the Academic Program Rules
 - b comply with conditions as prescribed in the Academic Program Rules and
 - c present a satisfactory written report and public presentation on a supervised project on a topic approved by the School of Computer Science.
- 4.2 Academic program

Note: intending students should consult the School of Computer Science early in the year in which they plan to study in order to ascertain whether particular courses will be available in that year, in which semester they will be taught and their precise content.

 - 4.2.1 A candidate for the degree shall complete satisfactorily a total of at least 48 units.
 - 4.2.2 A candidate for the degree shall regularly attend lectures and tutorials, do such written and practical work as may be prescribed, and pass examinations in at least 42 units of non-project courses offered by the School of Computer Science and the Entrepreneurship, Commercialisation and Innovation Centre at the Honours or Masters level. Other courses may be included, subject to the approval of the Head of the School.

- a The first four courses presented towards the degree must consist of:
 - COMP SCI 7080 Computer Science Concepts3
 - COMP SCI 7081 Computer Systems3
 - COMP SCI 7082 Data Structures and Algorithms3
 - COMP SCI 7097 Communication and Study Skills.....3

No other courses from clause 4.1.1 of the Academic Program Rules for the Graduate Diploma in Computer Science may be presented.
- b At least 12 units but not more than 18 units of courses listed in clause 4.1.2 of the Academic Program Rules for the Graduate Diploma in Computer Science must be presented. The courses must include:
 - COMP SCI 7015 Software Engineering and Project.....3
- c At least 6 units selected from the following courses offered by the Entrepreneurship, Commercialisation, and Innovation Centre:
 - TECHCOMM 5016 Entrepreneurship and Innovation3
 - TECHCOMM 5018 Opportunity Assessment 3
 - TECHCOMM 5021 Applied Project Management 13
 - TECHCOMM 7022 Creativity & Innovation3
- d The courses presented must include:
 - COMP SCI 7098 Master of Computing and Innovation Project.....6

- 4.2.3 The Faculty may grant status of up to the value of 24 units for relevant studies undertaken within an Honours degree in Computer Science at the University of Adelaide, or within an equivalent degree of another tertiary institution. These candidates will still need to present a minimum of 24 units towards the Master of Computing and Innovation that have not been presented for any other degree.
- 4.2.4 No candidate will be permitted to count for the Master of Computing and Innovation any course that in the opinion of the School contains substantially the same material as any other course which the candidate has presented already for another qualification. If a non-project course excluded by this clause is required to be presented then that requirement will be waived. Advanced standing will only be awarded subject to clause 4.2.3

4.3 Unacceptable combinations of courses

Subject to 5.2.3 no candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.4 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.

Graduate Attributes

Master of Computing and Innovation

- Ability to apply knowledge of Computer Science fundamentals, including programming, computer and data structures and computer networks.
- Ability to design complex systems involving both hardware, software and networks using software engineering techniques.
- Appreciation of current technologies.
- Appreciation of professional conduct and ethical issues in the ICT industry.
- Ability to communicate effectively, not only with other computer scientists and software engineers, but with the community at large on information technology issues.
- Ability to establish, manage and work within innovative and entrepreneurial enterprises.
- Ability to demonstrate an understanding of the nature and processes of innovation, project management and commercialisation
- Ability to contribute effectively as members of multi-disciplinary and multi-cultural teams, with the capacity to be leaders or managers as well as effective team members.
- Ability, by self directed study, to remain up to date with developments in their careers/professions.



Master of Engineering in: Aerospace Engineering *or* Chemical Engineering *or* Civil & Environmental Engineering *or* Civil & Structural Engineering *or* Electrical & Electronic Engineering *or* Engineering Mathematics *or* Mechanical Engineering *or* Mechatronic Engineering

1 Duration of program

Except with the permission of the Faculty, the Master of Engineering shall be completed in a minimum of two semesters or a maximum of eight semesters.

2 Admission

- 2.1 Except as provided for in 2.2 below, an applicant for admission to the program shall have qualified for the degree of Bachelor of Engineering with Honours either from, or accepted by the University of Adelaide as equivalent, in a discipline related to the proposed field of study.
- 2.2 The Faculty may, in exceptional circumstances and subject to such conditions (if any) as it may see fit to impose, accept as a candidate for the degree of Master of Engineering, a person who does not qualify 2.1 above, but has given evidence satisfactory to the Faculty of fitness to undertake work for the degree.

2.3 Status or exemption

A candidate may not present for credit towards the degree any course which has been presented as part of the requirements for any other award of this University or other institution, or which in the opinion of the Faculty is substantially similar to such course.

3 Assessment and examinations

- 3.1 There shall be four classifications of pass in any course for the Master of Engineering: Pass with High Distinction, Pass with Distinction, Pass with Credit, and Pass. Courses passed with a Conceded Pass classification may not be counted towards the requirements for the degree of Master of Engineering.
- 3.2 A candidate shall not be eligible to attend for examination unless any prescribed coursework

has been completed to the satisfaction of the teaching staff concerned.

- 3.3 A candidate who fails in a course and desires to take the course again shall again attend the course and satisfactorily do such written and practical work as the teaching staff concerned may prescribe, unless specifically exempted therefrom after written application to the Faculty for such exemption.
- 3.4 A candidate who has twice failed any course may not enrol for that course again except by special permission of the Faculty and then only under such conditions as may be prescribed.
- 3.5 For the purpose of this Rule, a candidate who is refused permission to sit for the assessment for a given course, or who without a reason accepted by the Executive Dean of the Faculty (or nominee) fails to attend all or part of the assessment, shall be deemed to have failed that course.

4 Qualification requirements

- 4.1 To qualify for the degree of Master of Engineering, a candidate shall satisfactorily complete courses to a total value of at least 24 units including core courses from Group A to the value of 9 units and elective courses from Group B in one of the specified disciplines, to a value of at least 12 units. No more than 3 units can be selected from the Management electives under Group B*.

Candidates must have their program of studies approved by the Head of School or nominee at enrolment.

*Candidates undertaking the disciplines of Aerospace, Mechanical or Mechatronic Engineering are not permitted to present any Management electives toward their program.

4.2 Academic program

A Core courses

STATS 7053 Statistics in Engineering	3
TECHCOMM 5021 Applied Project Management I	3
<i>and either</i>	
APP MTH 7054 System Modelling & Simulation ...	3
<i>or</i>	
COMP SCI 7077 System Modelling & Simulation ..	3

B Elective courses

Aerospace Engineering

APP MTH 7018 Aerodynamics	3
APP MTH 7052 Computational Fluid Dynamics ...	3
CHEM ENG 7047 Composites and Multiphase Polymers	3
MECH ENG 7021 Combustion Technology and Emissions Control.....	3
MECH ENG 7023 Fracture Mechanics	3
MECH ENG 7024 Robotics M	3
MECH ENG 7026 Advanced Topics in Fluid Mechanics	3
MECH ENG 7027 Engineering Acoustics.....	3
MECH ENG 7028 Advanced Automatic Control ...	3
MECH ENG 7030 Advanced Vibrations.....	3
MECH ENG 7034 Advanced Digital Control.....	3
MECH ENG 7035 High-Speed Aerodynamics.....	3
MECH ENG 7037 Aerospace Propulsion 1	3
MECH ENG 7038 Aerospace Propulsion 2	3
MECH ENG 7043 Stresses in Plates and Shells ...	3
MECH ENG 7045 CFD for Engineering Applications	3
MECH ENG 7051 Computational Acoustics	3
MECH ENG 7050 Sustainability & the Environment.....	3
MECH ENG 7053 Aerospace Propulsion	3
MECH ENG 7055 Wind Engineering	3
MECH ENG 7059 Finite Element Analysis of Structures	3
MECH ENG 7060 Mechanical Signature Analysis.....	3
MECH ENG 7061 Corrosion Principles and Prevention.....	3
MECH ENG 7062 Aircraft Design.....	3
MECH ENG 7063 Advanced Topics in Aerospace Engineering.....	3

Chemical Engineering

Note: not all courses are offered each year. Students are advised to check with the postgraduate coursework coordinator before enrolling in this program.

Energy and Combustion:

CHEM ENG 7032 Principles of Sustainability & Decision Making	3
CHEM ENG 7033 Chemometrics	3
CHEM ENG 7034 Environmental Modelling	3
CHEM ENG 7036 Air Pollution.....	3
CHEM ENG 7037 Combustion and Energy Engineering	3
CHEM ENG 7039 Pinch Analysis.....	3
CHEM ENG 7040 Thermal & Separation Processes	3
CHEM ENG 7041 Advanced Rheology and Polymer Process.....	3
CHEM ENG 7042 Advanced Chemical Engineering Thermodynamics.....	3
CHEM ENG 7044 Food Engineering	3
CHEM ENG 7045 Advanced Fluid Mechanics	3
ELEC ENG 7057 Engineering Communication and Critical Thinking	3

Environment and Sustainability:

CHEM ENG 7032 Principles of Sustainability & Decision Making	3
CHEM ENG 7033 Chemometrics	3
CHEM ENG 7034 Environmental Modelling	3
CHEM ENG 7036 Air Pollution.....	3
CHEM ENG 7037 Combustion and Energy Engineering	3
CHEM ENG 7039 Pinch Analysis.....	3
CHEM ENG 7040 Thermal & Separation Processes	3
CHEM ENG 7041 Advanced Rheology and Polymer Process	3
CHEM ENG 7042 Advanced Chemical Engineering Thermodynamics.....	3
CHEM ENG 7044 Food Engineering	3
CHEM ENG 7045 Advanced Fluid Mechanics	3
ELEC ENG 7057 Engineering Communication and Critical Thinking	3

Food and BioProcessing:

CHEM ENG 7032 Principles of Sustainability & Decision Making	3
CHEM ENG 7033 Chemometrics	3
CHEM ENG 7034 Environmental Modelling	3
CHEM ENG 7035 Wastewater Treatment	3
CHEM ENG 7039 Pinch Analysis.....	3
CHEM ENG 7045 Advanced Fluid Mechanics	3
CHEM ENG 7040 Thermal & Separation Processes	3

CHEM ENG 7041 Advanced Rheology and Polymer Process	3
CHEM ENG 7043 Bioreaction and Bioreparation Engineering	3
CHEM ENG 7044 Food Engineering	3
ELEC ENG 7057 Engineering Communication and Critical Thinking	3

Civil & Environmental Engineering

C&ENVENG 7027 Wastewater Engineering & Design	3
C&ENVENG 7028 Waste Management Analysis & Design	3
C&ENVENG 7029 Environmental Modelling, Management & Design	3
C&ENVENG 7034 Deep Foundation Engineering & Design	3
C&ENVENG 7035 Expansive Soils & Footing Design	3
C&ENVENG 7036 Water Resources Optimisation & Modelling	3
C&ENVENG 7037 Water Distribution Systems & Design	3
C&ENVENG 7038 Coastal Engineering & Design ..	3
C&ENVENG 7044 Introduction to Environmental Law	3
C&ENVENG 7047 Analysis of Rivers & Sediment Transport	3
C&ENVENG 7048 Water Resources Sustainability and Design	3

Civil & Structural Engineering

C&ENVENG 7033 Structural Dynamics due to Wind & Earthquakes	3
C&ENVENG 7034 Deep Foundation Engineering & Design	3
C&ENVENG 7035 Expansive Soils & Footing Design	3
C&ENVENG 7036 Water Resources Optimisation & Modelling	3
C&ENVENG 7037 Water Distribution Systems & Design	3
C&ENVENG 7038 Coastal Engineering & Design ..	3
C&ENVENG 7042 Advanced Reinforced Concrete	3
C&ENVENG 7046 FRP Retrofitting of Concrete Structures	3
C&ENVENG 7047 Analysis of Rivers and Sediment Transport	3
C&ENVENG 7048 Water Resources Sustainability and Design	3
C&ENVENG 7059 Structural Response to Blast Loading	3
C&ENVENG 7061 Computer Methods of Structural Analysis and Design	3

Electrical & Electronic Engineering

APP MTH 7026 Communication Network Design..3	
APP MTH 7056 Telecommunications Systems Modelling	3
ELEC ENG 7015 Adaptive Signal Processing.....3	
ELEC ENG 7017 Beam Forming & Array Processing	3
ELEC ENG 7033 Principles of RF Engineering.....3	
ELEC ENG 7044 Multimedia Communications.....3	
ELEC ENG 7045 Photonics for Communications...3	
ELEC ENG 7046 Power Quality & Fault Diagnostics	3
ELEC ENG 7047 Studies in Electrical & Electronic Engineering A	3
ELEC ENG 7049 Power Electronics Systems	3
ELEC ENG 7050 Microelectronic Testing and Design for Test	3
ELEC ENG 7051 Microelectronic Datapaths and Arithmetic	3
ELEC ENG 7052 Electromagnetic Theory and RFID Applications	3
ELEC ENG 7053 Analog Microelectronic Systems	3
ELEC ENG 7055 Antennas and Propagation.....3	
ELEC ENG 7056 RF Measurement and Testing...3	
ELEC ENG 7057 Engineering Communication & Critical Thinking	3
ELEC ENG 7059 Radar Principles and Systems ...3	
ELEC ENG 7060 Image Sensors & Processing	3
ELEC ENG 7071 Detection Estimation and Classification.....3	
SIP 7001 Information Theory.....3	

Engineering Mathematics

APP MTH 7011 Transform Methods and Signal Processing	3
APP MTH 7018 Aerodynamics	3
APP MTH 7026 Communication Network Design (Masters).....3	
APP MTH 7052 Computational Fluid Dynamics (Engineering).....3	
APP MTH 7056 Telecommunications Systems	3
APP MTH 7057 Special Studies in Engineering Mathematics	3
APP MTH 7074 Modelling Telecommunication Traffic	3
APP MTH 7078 Information Theory	3
ELEC ENG 7015 Adaptive Signal Processing.....3	
MECH ENG 7026 Advanced Topics in Fluid Mechanics	3

Management

No more than 3 units selected from:

TECHCOMM 5008 Leading and Managing	3
TECHCOMM 5026 Applied Project Management 2	3

Mechanical Engineering

APP MTH 7018 Aerodynamics	3
APP MTH 7052 Computational Fluid Dynamics (Engineering).....	3
CHEM ENG 7047 Composites and Multiphase Polymers	3
ELEC ENG 7057 Engineering Communication & Critical Thinking	3
MECH ENG 7020 Materials Selection & Failure Analysis	3
MECH ENG 7021 Combustion Technology & Emissions Control	3
MECH ENG 7023 Fracture Mechanics.....	3
MECH ENG 7024 Robotics M	3
MECH ENG 7025 Topics in Welded Structures	3
MECH ENG 7026 Advanced Topics in Fluid Mechanics	3
MECH ENG 7027 Engineering Acoustics.....	3
MECH ENG 7028 Advanced Automatic Control ...	3
MECH ENG 7029 Airconditioning	3
MECH ENG 7030 Advanced Vibrations.....	3
MECH ENG 7034 Advanced Digital Control.....	3
MECH ENG 7036 Environmental & Architectural Acoustics	3
MECH ENG 7037 Aerospace Propulsion I	3
MECH ENG 7039 Automotive NVH & Aerodynamics	3
MECH ENG 7044 Biomedical Engineering	3
MECH ENG 7045 CFD for Engineering Applications	3
MECH ENG 7050 Sustainability & the Environment.....	3
MECH ENG 7051 Computational Acoustics	3
MECH ENG 7055 Wind Engineering	3
MECH ENG 7062 Aircraft Design.....	3
MECH ENG 7062 Aircraft Design.....	3
MECH ENG 7063 Adv Topics in Aerospace Engineering.....	3
MECH ENG 7061 Corrosion Principles and Prevention	3

Mechatronic Engineering

APP MTH 7026 Communication Network Design (Masters).....	3
APP MTH 7054 Transform Methods & Signal Processing	3

CHEM ENG 7047 Composites and Multiphase Polymers	3
ELEC ENG 7015 Adaptive Signal Processing.....	3
ELEC ENG 7033 Principles of RF Engineering.....	3
ELEC ENG 7053 Analog Microelectronic Systems ..	3
ELEC ENG 7057 Engineering Communication and Critical Thinking	3
ELEC ENG 7060 Image Sensors and Processing ..	3
ELEC ENG 7065 Sonar Sensors and Systems.....	3
ELEC ENG 7069 Electrical Energy Systems	3
MECH ENG 7024 Robotics M	3
MECH ENG 7026 Advanced Topics in Fluid Mechanics.....	3
MECH ENG 7027 Engineering Acoustics.....	3
MECH ENG 7028 Advanced Automatic Control ...	3
MECH ENG 7030 Advanced Vibrations.....	3
MECH ENG 7034 Advanced Digital Control.....	3
MECH ENG 7036 Environmental and Architectural Acoustics	3
MECH ENG 7039 Automotive NVH & Aerodynamics.....	3
MECH ENG 7050 Sustainability & the Environment.....	3
MECH ENG 7051 Computational Acoustics	3
MECH ENG 7055 Wind Engineering	3
MECH ENG 7060 Mechanical Signature Analysis.....	3
MECH ENG 7064 Mechatronics IIIM	3

The availability of elective courses is conditional on the availability of staff and facilities and sufficient enrolments.

Other relevant courses may be presented towards the requirements of the Master of Engineering with the approval of Faculty.

4.3 Unacceptable combination of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.4 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Master of Engineering (Advanced) in: Aerospace Engineering *or* Chemical Engineering - Energy & Combustion *or* Chemical Engineering - Environmental & Sustainability *or* Chemical Engineering - Food & Bio Processing *or* Civil & Environmental Engineering *or* Civil & Structural Engineering *or* Electrical Engineering *or* Mechanical Engineering *or* Mechatronic Engineering *or* Sensor Systems and Signal Processing *or* Telecommunications

1 Duration of program

Except with the permission of the Faculty, the Master of Engineering (Advanced) shall be completed in a minimum of four semesters or a maximum of sixteen semesters.

2 Admission

2.1 Except as provided for in 2.2 below, an applicant for admission to the program shall have qualified for an award either from or accepted by the Faculty of Engineering, Computer and Mathematical Sciences as being equivalent to the degree of Bachelor of Engineering with Honours in a discipline related to the proposed field of study.

2.2 The Faculty may, in exceptional circumstances and subject to such conditions (if any) as it may see fit to impose, accept as a candidate for the degree of Master of Engineering (Advanced), a person who does not hold the qualifications specified in 2.1 above, but has given evidence satisfactory to the Faculty of fitness to undertake work for the degree.

2.3 Status or exemption

A candidate may not present for credit towards the degree any course which has been presented as part of the requirements for any other award of this University or other institution, or which in the opinion of the Faculty is substantially similar to such course.

2.4 Articulation with other awards

2.4.1 A candidate who has been enrolled in the Master of Engineering from the University of Adelaide and who has not been awarded the Master of

Engineering shall, on written application, be permitted to transfer all equivalent courses towards the Master of Engineering (Advanced) degree.

2.4.2 A candidate who holds the Master of Engineering from the University of Adelaide shall surrender the Master of Engineering before being awarded the degree of Master of Engineering (Advanced)

3 Assessment and examinations

3.1 There shall be four classifications of pass in any course for the Master of Engineering (Advanced): Pass with High Distinction, Pass with Distinction, Pass with Credit, and Pass. Courses passed with a Conceded Pass classification may not be counted towards the requirements for the degree of Master of Engineering (Advanced).

3.2 A candidate shall not be eligible to attend for examination unless any prescribed coursework has been completed to the satisfaction of the teaching staff concerned.

3.3 A candidate who fails in a course and desires to take the course again shall again attend the course and satisfactorily do such written and practical work as the teaching staff concerned may prescribe, unless specifically exempted therefrom after written application to the Faculty for such exemption.

3.4 A candidate who has twice failed any course may not enrol for that course again except by special permission of the Faculty and then only under such conditions as may be prescribed.

- 3.5 For the purpose of this Rule, a candidate who is refused permission to sit for the assessment for a given course, or who without a reason accepted by the Executive Dean of the Faculty (or nominee) fails to attend all or part of the assessment, shall be deemed to have failed that course.

4 Qualification requirements

- 4.1 To qualify for the degree of Master of Engineering (Advanced), a candidate shall satisfactorily complete 48 units of study comprising:

- a coursework to a total value of at least 36 units including core courses from Group A to the value of 9 units, and elective courses from Group B in one of the specified disciplines, to a value of at least 27 units. No more than 3 units may be selected from the Management electives under Group B*
- b a research project from Group C in one of the specified disciplines to the value of 12 units.

Candidates must have their program of studies approved by the Head of School or nominee at enrolment.

* Candidates undertaking the disciplines of Aerospace, Mechanical or Mechatronic Engineering are not permitted to present any Management electives

4.2 Academic program

A Core courses

STATS 7053 Statistics in Engineering	3
TECHCOMM 5021 Applied Project Management I	3
<i>and either</i>	
APP MTH 7054 System Modelling & Simulation.....	3
<i>or</i>	
COMP SCI 7077 System Modelling & Simulation ..	3

B Elective courses

Aerospace Engineering

APP MTH 7018 Aerodynamics	3
APP MTH 7052 Computational Fluid Dynamics ...	3
CHEM ENG 7047 Composites and Multiphase Polymers	3
MECH ENG 7021 Combustion Technology and Emissions Control	3
MECH ENG 7023 Fracture Mechanics	3
MECH ENG 7024 Robotics M	3
MECH ENG 7026 Advanced Topics in Fluid Mechanics	3
MECH ENG 7027 Engineering Acoustics.....	3
MECH ENG 7028 Advanced Automatic Control ...	3
MECH ENG 7030 Advanced Vibrations.....	3
MECH ENG 7034 Advanced Digital Control.....	3
MECH ENG 7035 High-Speed Aerodynamics.....	3
MECH ENG 7037 Aerospace Propulsion 1	3

MECH ENG 7038 Aerospace Propulsion 2	3
MECH ENG 7043 Stresses in Plates and Shells ...	3
MECH ENG 7045 CFD for Engineering Applications	3
MECH ENG 7051 Computational Acoustics	3
MECH ENG 7050 Sustainability and the Environment.....	3
MECH ENG 7055 Wind Engineering	3
MECH ENG 7053 Aerospace Propulsion	3
MECH ENG 7059 Finite Element Analysis of Structures	3
MECH ENG 7060 Mechanical Signature Analysis....	3
MECH ENG 7061 Corrosion Principles and Prevention	3
MECH ENG 7062 Aircraft Design.....	3
MECH ENG 7063 Advanced Topics in Aerospace Engineering.....	3

Chemical Engineering

Note: not all courses are offered each year. Students are advised to check with the postgraduate coursework coordinator before enrolling in this program.

Energy and Combustion:

CHEM ENG 7032 Principles of Sustainability & Decision Making	3
CHEM ENG 7033 Chemometrics	3
CHEM ENG 7034 Environmental Modelling	3
CHEM ENG 7036 Air Pollution.....	3
CHEM ENG 7037 Combustion and Energy Engineering	3
CHEM ENG 7039 Pinch Analysis.....	3
CHEM ENG 7040 Thermal & Separation Processes	3
CHEM ENG 7041 Advanced Rheology and Polymer Process	3
CHEM ENG 7042 Advanced Chemical Engineering Thermodynamics.....	3
CHEM ENG 7044 Food Engineering	3
CHEM ENG 7045 Advanced Fluid Mechanics	3
<i>Environment and Sustainability:</i>	
CHEM ENG 7031 Communications & Management	3
CHEM ENG 7032 Principles of Sustainability & Decision Making	3
CHEM ENG 7033 Chemometrics	3
CHEM ENG 7034 Environmental Modelling	3
CHEM ENG 7035 Wastewater Treatment.....	3
CHEM ENG 7036 Air Pollution	3
CHEM ENG 7037 Combustion and Energy Engineering	3
CHEM ENG 7038 Process Plant Safety & Risk Assessment.....	3

CHEM ENG 7039 Pinch Analysis.....	3
CHEM ENG 7040 Thermal & Separation Processes	3
CHEM ENG 7041 Advanced Rheology and Polymer Process.....	3
CHEM ENG 7042 Advanced Chemical Engineering Thermodynamics.....	3
ELEC ENG 7057 Engineering Communication and Critical Thinking	3
<i>Food and BioProcessing:</i>	
CHEM ENG 7032 Principles of Sustainability & Decision Making.....	3
CHEM ENG 7033 Chemometrics	3
CHEM ENG 7034 Environmental Modelling	3
CHEM ENG 7035 Wastewater Treatment.....	3
CHEM ENG 7039 Pinch Analysis.....	3
CHEM ENG 7045 Advanced Fluid Mechanics	3
CHEM ENG 7040 Thermal & Separation Processes	3
CHEM ENG 7041 Advanced Rheology and Polymer Process.....	3
CHEM ENG 7043 Bioreaction and Bioseparation Engineering.....	3
CHEM ENG 7044 Food Engineering	3
ELEC ENG 7057 Engineering Communication and Critical Thinking	3
Civil and Environmental Engineering	
C&ENVENG 7027 Wastewater Engineering & Design.....	3
C&ENVENG 7028 Waste Management Analysis & Design.....	3
C&ENVENG 7029 Environmental Modelling, Management & Design.....	3
C&ENVENG 7034 Deep Foundation Engineering & Design.....	3
C&ENVENG 7035 Expansive Soils & Footing Design.....	3
C&ENVENG 7036 Water Resources Optimisation and Modelling.....	3
C&ENVENG 7037 Water Distribution Systems & Design.....	3
C&ENVENG 7038 Coastal Engineering & Design ..	3
C&ENVENG 7044 Introduction to Environmental Law	3
C&ENVENG 7047 Analysis of Rivers and Sediment Transport	3
C&ENVENG 7048 Water Resources Sustainability.....	3
Civil and Structural Engineering	
C&ENVENG 7033 Structural Dynamics due to Wind and Earthquake.....	3
C&ENVENG 7034 Deep Foundation Engineering & Design.....	3

C&ENVENG 7035 Expansive Soils & Footing Design.....	3
C&ENVENG 7036 Water Resources Optimisation and Modelling	3
C&ENVENG 7037 Water Distribution Systems & Design.....	3
C&ENVENG 7038 Coastal Engineering & Design ..	3
C&ENVENG 7042 Advanced Reinforced Concrete	3
C&ENVENG 7046 FRP Retrofitting of Concrete Structures	3
C&ENVENG 7047 Analysis of Rivers and Sediment Transport	3
C&ENVENG 7048 Water Resources Sustainability and Design.....	3
C&ENVENG 7059 Structural Response to Blast Loading.....	3
C&ENVENG 7061 Computer Methods of Structural Analysis and Design.....	3
Electrical Engineering	
APP MTH 7011 Transform Methods and Signal Processing	3
ELEC ENG 7015 Adaptive Signal Processing.....	3
ELEC ENG 7046 Power Quality and Fault Diagnostics.....	3
ELEC ENG 7049 Power Electronic Systems	3
ELEC ENG 7057 Engineering Communication and Critical Thinking	3
ELEC ENG 7066 Power System Dynamics	3
ELEC ENG 7068 Power System Monitoring and Protection.....	3
MECH ENG 7034 Advanced Digital Control.....	3
TECHCOMM 5013 Systems Engineering	3
Management	
No more than 3 units selected from:	
TECHCOMM 5008 Leading and Managing	3
TECHCOMM 5026 Applied Project Management 2	3
Mechanical Engineering	
APP MTH 7018 Aerodynamics.....	3
APP MTH 7052 Computational Fluid Dynamics ...	3
CHEM ENG 7047 Composites and Multiphase Polymers	3
ELEC ENG 7057 Engineering Communication and Critical Thinking	3
MECH ENG 7020 Materials Selection & Failure Analysis.....	3
MECH ENG 7021 Combustion Technology & Emissions Control	3
MECH ENG 7023 Fracture Mechanics.....	3
MECH ENG 7024 Robotics M	3
MECH ENG 7025 Topics in Welded Structures ...	3

MECH ENG 7026 Advanced Topics in Fluid Mechanics	3
MECH ENG 7027 Engineering Acoustics.....	3
MECH ENG 7028 Advanced Automatic Control ...	3
MECH ENG 7029 Airconditioning	3
MECH ENG 7030 Advanced Vibrations.....	3
MECH ENG 7034 Advanced digital Control.....	3
MECH ENG 7036 Environmental & Architectural Acoustics	3
MECH ENG 7037 Aerospace Propulsion I	3
MECH ENG 7039 Automotive NVH & Aerodynamics	3
MECH ENG 7044 Biomechanical Engineering.....	3
MECH ENG 7045 CFD for Engineering Applications	3
MECH ENG 7050 Sustainability and the Environment.....	3
MECH ENG 7051 Computational Acoustics	3
MECH ENG 7055 Wind Engineering	3
MECH ENG 7064 Mechatronics IIIM	3
MECH ENG 7061 Corrosion Principles and Prevention	3
Mechatronic Engineering	
APP MTH 7011 Transform Methods & Signal Processing	3
APP MTH 7026 Communication Network Design (Masters).....	3
ELEC ENG 7015 Adaptive Signal Processing.....	3
ELEC ENG 7033 Principles of RF Engineering.....	3
ELEC ENG 7053 Analog Microelectronic Systems	3
ELEC ENG 7057 Engineering Communication and Critical Thinking	3
ELEC ENG 7060 Image Sensors and Processing .	3
ELEC ENG 7065 Sonar Sensors and Systems.....	3
ELEC ENG 7069 Electrical Energy Systems	3
MECH ENG 7024 Robotics M.....	3
MECH ENG 7026 Advanced Topics in Fluid Mechanics.....	3
MECH ENG 7027 Engineering Acoustics.....	3
MECH ENG 7028 Advanced Automatic Control ...	3
MECH ENG 7030 Advanced Vibrations.....	3
MECH ENG 7034 Advanced Digital Control.....	3
MECH ENG 7036 Environmental and Architectural Acoustics	3
MECH ENG 7039 Automotive NVH & Aerodynamics.....	3
MECH ENG 7045 CFD for Engineering Applications	3
MECH ENG 7050 Sustainability and the Environment.....	3
MECH ENG 7051 Computational Acoustics	3
MECH ENG 7055 Wind Engineering	3
MECH ENG 7059 Finite Element Analysis of Structures	3
MECH ENG 7060 Mechanical Signature Analysis.....	3
MECH ENG 7064 Mechatronics IIIM	3
Sensor Systems Signal Processing	
APP MTH 7011 Transform Methods & Signal Processing	3
ELEC ENG 7015 Adaptive Signal Processing	3
ELEC ENG 7017 Beamforming & Array Processing	3
ELEC ENG 7033 Principles of RF Engineering	3
ELEC ENG 7051 Microelectronic Datapaths & Arithmetic	3
ELEC ENG 7052 EM Theory & RFID	3
ELEC ENG 7053 Analog Microelectronic Systems	3
ELEC ENG 7055 Antennas and Propagation	3
APP MTH 7056 Telecommunications Systems Modelling.....	3
ELEC ENG 7057 Engineering Communication and Critical Thinking	3
ELEC ENG 7059 Radar Principles and Systems ..	3
ELEC ENG 7060 Image Sensors and Processing .	3
ELEC ENG 7071 Detection Estimation and Classification.....	3
SIP 7001 Information Theory.....	3
Telecommunications	
APP MTH 7011 Transform Methods & Signal Processing	3
APP MTH 7026 Communication Network Design	3
APP MTH 7056 Telecommunications Systems Modelling.....	3
APP MTH 7074 Modelling Telecommunications Traffic	3
ELEC ENG 7015 Adaptive Signal Processing	3
ELEC ENG 7017 Beamforming & Array Processing	3
ELEC ENG 7033 Principles of RF Engineering.....	3
ELEC ENG 7044 Multimedia Communications.....	3
ELEC ENG 7045 Photonics for Communications.....	3
ELEC ENG 7051 Microelectronic Datapaths & Arithmetic	3
ELEC ENG 7052 Electromagnetic Theory and RFID Applications	3
ELEC ENG 7053 Analog Microelectronic Systems	3
ELEC ENG 7055 Antennas and Propagation.....	3

ELEC ENG 7057 Engineering Communication and Critical Thinking	3
ELEC ENG 7071 Detection Estimation and Classification.....	3
SIP 7001 Information Theory.....	3

C Research Project

C&ENVENG 7049A/B Masters Civil & Structural Engineering Project	12
C&ENVENG 7058A/B Masters Civil & Environmental Engineering Project	12
CHEM ENG 7046A/B Masters Project.....	12
ELEC ENG 7058A/B Masters Project	12
MECH ENG 7041A/B Masters Project.....	12

The availability of all elective courses is conditional on the availability of staff and facilities and sufficient enrolments.

Other relevant courses may be presented towards the requirements of the Master of Engineering (Advanced) with the approval of the Head of the relevant discipline.

4.3 Unacceptable combination of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.4 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



1 General

This document must be read in conjunction with:

- a the General Academic Program Rules for Master by Research Programs (see under Adelaide Graduate Centre, p.18) *and*
- b the Research Student Handbook, published by the Adelaide Graduate Centre.

These documents explain procedures to be followed and contain guidelines on supervision and research for the degree of Doctor of Philosophy and the various Masters Degrees by Research, offered by the University.

All students must comply with both the General Academic Rules and the rules following below, and procedures outlined in the Research Student Handbook.

In addition to the General Academic Program Rules for Masters by Research degrees, in this publication, the following discipline specific rules apply.

2 Admission

2.1 In addition to General Academic Program Rule 4.1 on Admission, applicants for admission to candidature for the Master of Engineering Science must hold:

- a a degree of Bachelor of Engineering in the Honours grade from the University of Adelaide *or*
- b a qualification accepted by the Research Education and Development Committee as being equivalent to a degree of Bachelor of Engineering in the Honours grade from the University of Adelaide *or*
- c a degree of Bachelor of Engineering in the Pass grade or a qualification accepted by the Committee as being equivalent to the degree of Bachelor of Engineering in the Pass grade from the University of Adelaide, and who has, in addition, successfully undertaken advanced studies and/or work in engineering practice which is considered by the Committee to be an adequate preparation for candidature. Candidates admitted under this Rule may be required to undertake qualifying work as prescribed by the Board.

2.2 Mode of study

In addition to General Academic Program Rule 7.1, subject to such conditions as it may determine in each case, the Research Education and Development Committee may permit project work to be undertaken outside the University provided that it can be satisfied:

- a that this will result in mutual academic benefit to the candidate and the candidate's supervising school
- b that there will be adequate contact and interaction between the candidate and the candidate's supervising school *and*
- c that the supervisor's access to any experimental work, the candidate's availability for seminars and other discussions, and the publication of results will not thereby be prejudiced.

2.3 Program of study

In addition to General Academic Program Rule 19.1, a program of study for the Master of Engineering Science may contain a combination of coursework and project work. Currently two options are offered.

To qualify for the degree, a candidate shall satisfactorily complete a program of study consisting of one of the following approved options:

- a an all-research work program comprising Supervised Project Work be completed and the thesis submitted in not less than one year full-time equivalent or more than two years full-time equivalent from the date of commencement of candidature *or*
- b a three-quarters research program comprising coursework to the value of 12 units and Supervised Project Work. All coursework is to be completed and the thesis submitted in not less than one year full-time equivalent or more than two years full-time equivalent from the date of commencement of candidature.

2.4 Classification of courses

Courses forming part of any coursework component for the degree shall be classified as follows:

A Postgraduate courses

These are courses offered at a postgraduate level either in the Faculty of Engineering, Computer and Mathematical Sciences, in another faculty or school, or at another Institution. These include postgraduate courses in the Faculty of Engineering, Computer and Mathematical Sciences, Honours and approved postgraduate diploma courses in the Faculty of Sciences and postgraduate courses at Flinders University or the University of South Australia.

B Advanced level courses

These are courses in Engineering which have been designated as 'Advanced Level' by the School concerned. They are courses which reach an advanced level of expertise in the course material.

Subject to the approval of the Faculty, courses from outside Engineering may also be included in this category.

C Ordinary level courses

These are courses at either Level III or Level IV in the Faculty of Engineering, Computer and Mathematical Sciences which are not designated 'Advanced Level', or courses at Level III in the Faculty of Sciences, or approved final year undergraduate courses from other Faculties or institutions.

2.5 Coursework requirements

- 2.5.1 A candidate seeking to enrol in a program of study with a coursework component shall, after consulting the Head of the school (or nominee) in which the majority of the candidate's work falls, submit the proposed program to the Committee for approval.
- 2.5.2 The program for a three-quarters research and one-quarter coursework may not contain more than a total of 6 units of courses from Groups B and C and may not contain more than 6 units of courses from outside the discipline of Engineering.
- For the purposes of this policy, the discipline of Engineering is deemed to include all Centres and joint ventures of which the discipline, or its constituent schools, is a formal partner.
- 2.5.3 There shall be four classifications of pass in each course for the Master of Engineering Science: Pass with High Distinction, Pass with Distinction, Pass with Credit, and Pass. If a course has a Conceded Pass classification for the purpose of another award, any such course passed with this classification shall not count towards the requirements for the degree of Master of Engineering Science.
- 2.5.4 A course shall be eligible to be counted for credit towards the coursework requirements of the degree if:
- in Groups A and B the grade obtained is at Pass standard (50%) or higher
 - in Group C the grade obtained is 60% or higher.
- 2.5.5 To satisfy the coursework requirements of the degree, a candidate must obtain a weighted average, taken over the best results in eligible courses which together amount to the required number of units, of at least 55%.
- 2.5.6 Courses which have been presented as part of the requirements for any other award of this University or other institution or courses which in the opinion of the Faculty are substantially similar to such courses, will not be permitted to count for credit towards the coursework requirements of this degree.

2.6 Academic program

The following shall be the courses for the Master of Engineering Science:

A Postgraduate courses

Chemical Engineering

CHEM ENG 7000 Minerals Processing	3
CHEM ENG 7004 Biochemical Engineering.....	3
CHEM ENG 7008 Combustion Processes	3
CHEM ENG 7009 Plant & Safety Engineering	3
CHEM ENG 7010W Winery Engineering.....	3
CHEM ENG 7012 Environmental Engineering	3
CHEM ENG 7021 Special Studies in Chemical Engineering.....	3
CHEM ENG 7022 Chemical Engineering Management and Optimisation	3
CHEM ENG 7023 Chemical Process Simulation...	3
CHEM ENG 7024 Process Synthesis & Integration..	3
CHEM ENG 7027 Transport Processes in the Environment	3
CHEM ENG 7030 Process Modelling & Control....	3

Civil & Environmental Engineering

C&ENVENG 7027 Wastewater Engineering & Design.....	3
C&ENVENG 7028 Waste Management Analysis & Design	3
C&ENVENG 7029 Environmental Modelling, Management & Design	3
C&ENVENG 7030 Steel Design.....	3
C&ENVENG 7031 Concrete Design.....	3
C&ENVENG 7033 Structural Dynamics due to Wind and Earthquakes.....	3
C&ENVENG 7034 Deep Foundation Engineering & Design.....	3
C&ENVENG 7035 Expansive Soils & Footing Design	3
C&ENVENG 7036 Water Resources Optimisation and Modelling	3
C&ENVENG 7037 Water Distribution Systems & Design.....	3
C&ENVENG 7038 Coastal Engineering & Design..	3
C&ENVENG 7042 Advanced Reinforced Concrete	3
C&ENVENG 7046 FRP Retrofitting of Concrete Structures	3
C&ENVENG 7047 Analysis of Rivers and Sediment Transport	3
C&ENVENG 7048 Water Resources Sustainability and Design.....	3
C&ENVENG 7059 Structural Response to Blast Loading.....	3

Electrical & Electronic Engineering

ELEC ENG 7015 Adaptive Signal Processing.....	3
ELEC ENG 7017 Beamforming & Array Processing	3
ELEC ENG 7033 Principles of RF Engineering.....	3

ELEC ENG 7044 Multimedia Communications.....	3
ELEC ENG 7045 Photonics for Communications	3
ELEC ENG 7046 Power Quality and Fault Diagnostics	3
ELEC ENG 7047 Special Studies in Electrical Engineering	3
ELEC ENG 7049 Power Electronics Systems	3
ELEC ENG 7050 Microelectronic Testing and Design for Test	3
ELEC ENG 7051 Microelectronic Datapaths and Arithmetic	3
ELEC ENG 7052 Electromagnetic Theory and RFID Applications	3
ELEC ENG 7053 Analog Microelectronic Systems ..	3
ELEC ENG 7054 Detection and Estimation Theory	3
ELEC ENG 7055 Antennas and Propagation.....	3
ELEC ENG 7056 RF Measurement and Testing....	3
Entrepreneurship, commercialism & Innovation Centre (EIC)	
TECHCOMM 5008 Leading and Managing.....	3
TECHCOMM 5016 Entrepreneurship & Innovation	3
TECHCOMM 5017 New Enterprise Financial Management	3
TECHCOMM 5018 Opportunity Assessment	3
TECHCOMM 5019 New Enterprise Marketing	3
TECHCOMM 5020 New Enterprise Operations.....	3
TECHCOMM 5021 Applied Project Management 1	3
Mathematical and Computer Sciences	
APP MTH 7026 Communication Network Design (Masters).....	3
APP MTH 7043 Transform Methods & Signal Processing	2
APP MTH 7050 Aerodynamics	3
APP MTH 7052 Computational Fluid Dynamics (Engineering).....	3
APP MTH 7056 Telecommunications Systems Modelling	3
APP MTH 7057 Special Studies in Engineering Mathematics	3
APP MTH 7078 Information Theory	3
Mechanical Engineering	
MECH ENG 7020 Materials Selection & Failure Analysis.....	3
MECH ENG 7021 Combustion Technology & Emissions Control	3
MECH ENG 7022 Fundamentals of Non-Linear Computational Mechanics.....	3
MECH ENG 7023 Fracture Mechanics.....	3
MECH ENG 7024 Robotics M	3
MECH ENG 7025 Topics in Welded Structures	3
MECH ENG 7026 Advanced Topics in Fluid Mechanics.....	3
MECH ENG 7027 Engineering Acoustics.....	3
MECH ENG 7028 Advanced Automatic Control ...	3
MECH ENG 7029 Airconditioning	3
MECH ENG 7030 Advanced Vibrations.....	3
MECH ENG 7031 Aerospace Navigation and Guidance.....	3
MECH ENG 7044 Biomechanical Engineering.....	3
Petroleum Engineering and Management	
PETROENG 7001 Petrophysics	2
PETROENG 7002 Reservoir Engineering	2
PETROENG 7006 Petroleum Project Economics ..	2
PETROENG 7009 Decision-Making and Risk Analysis	2
PETROENG 7012 Oil and Gas Resources & Reserves	2
PETROENG 7023 Project Management	2
PETROENG 7031 Reservoir Characterisation and Modelling	3
PETROENG 7032 Integrated Reservoir Management	2
PETROENG 7035 Reservoir Simulation.....	3
PETROENG 7038 Well Testing and Pressure Transient Analysis.....	3
PETROENG 7040 Enhanced Oil Recovery	3
PETROENG 7041 Gas Fields Optimisation	2
PETROENG 7043 Integrated Field Development..	3
PETROENG 7044 Petroleum Geology & Geophysics	2
PETROENG 7050 Production Engineering and Optimisation	3
PETROENG 7042 Drilling Engineering and Well Completion	3
PETROENG 7049 Advanced Managerial Decision Making & Risk Analysis	3
PETROENG 7048 Petroleum Exploration & Management	3
B Advanced courses	
Level IV Engineering courses, which have been designated as 'Advanced Level' by the School concerned; details available from the Schools.	
C Ordinary level courses	
Level III and IV courses (not included above) in the Faculties of Engineering, Computer and Mathematical Sciences, and Sciences.	
Notwithstanding the above, the availability of all courses is conditional on the availability of staff and facilities and sufficient enrolments.	

1 Duration of program

Except with the permission of the Faculty, the Master of Geostatistics shall be completed in a minimum of three semesters or a maximum of twelve semesters

2 Admission

- 2.1 Except as provided for in 2.2 below, an applicant for admission to the program shall have qualified for a Bachelor degree with Honours from the University of Adelaide in a discipline related to the proposed field of study, or a degree of another institution accepted by the Faculty of Engineering, Computer and Mathematical Sciences as being equivalent.
- 2.2 The Faculty may, in exceptional circumstances and subject to such conditions (if any) as it may see fit to impose, accept as a candidate for the degree of Master of Geostatistics, a person who does not qualify in 2.1 above, but has given evidence satisfactory to the Faculty of fitness to undertake work for the degree.

2.3 Status or exemption

- a A candidate may not present for credit towards the degree any course which has been presented for any other award of this University or other institution, or which in the opinion of the Faculty is substantially similar to such course.
- b A candidate who has passed courses in this or other educational institutions and who has not presented these courses towards an award may, on written application to the Faculty, be granted such exemption from the requirements of these Rules as the Faculty shall determine. Status may be granted for a maximum of 9 units under Clause 4.2 of the Academic Program Rules.

3 Assessment and examinations

- 3.1 There shall be four classifications of pass in any course for the Master Geostatistics: Pass with High Distinction, Pass with Distinction, Pass with Credit, and Pass. Courses passed with a Conceded Pass classification may not be counted towards the requirements for the degree of Master of Geostatistics.
- 3.2 A candidate shall not be eligible to attend for examination unless any prescribed coursework has been completed to the satisfaction of the teaching staff concerned.

- 3.3 A candidate who fails in a course and desires to take the course again shall again attend the course and satisfactorily do such written and practical work as the teaching staff concerned may prescribe, unless specifically exempted therefrom after written application to the Faculty for such exemption.
- 3.4 A candidate who has twice failed any course may not enrol for that course again except by special permission of the Faculty and then only under such conditions as may be prescribed.
- 3.5 For the purpose of this Rule, a candidate who is refused permission to sit for the assessment for a given course, or who without a reason accepted by the Executive Dean of the Faculty (or nominee) fails to attend all or part of the assessment, shall be deemed to have failed that course.

4 Qualification requirements

- 4.1 To qualify for the degree of Master of Geostatistics, a candidate shall satisfactorily complete courses to a total value of at least 36 units including core courses to the value of 24 units and supervised project work and seminar presentation to the value of 12 units.

Candidates must have their program of studies approved by the Postgraduate Coordinator or nominee at enrolment.

4.2 Academic program

4.2.1 Prerequisite course

C8ENVENG 7043 Introduction to Geostatistics* .. 3

4.2.2 Core courses

i	C8ENVENG 7056 Linear Geostatistics ⁺	3
	STATS 7061 Statistical Analysis ⁺	3
ii	C8ENVENG 7054 Computing for Geostatistics	2
	C8ENVENG 7055 Selection and Recoverability	2
	C8ENVENG 7057 Non-stationarity	2
	C8ENVENG 7053 Non-linear Geostatistics	3
	C8ENVENG 7052 Geostatistical Simulation	3
	STATS 7062 Multivariate Geostatistics	3

* C8ENVENG 7043 Introduction to Geostatistics is a prerequisite for all other courses in this program.

⁺ C8ENVENG 7056 and STATS 7061 must be completed after C8ENVENG 7043 and before other courses

4.2.3 Project

A candidate shall undertake and complete satisfactorily a Project under the guidance of a supervisor, and provide a public seminar and written dissertation on the investigation.

C&ENVENG 7051 Geostatistics -
Project & Thesis (Full-time) 12

or

C&ENVENG 7060A/B Geostatistics -
Project & Thesis (Part-time)..... 12

4.3 Unacceptable combination of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.4 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Master of Information Technology

Note: There will be no further intake into this program.

1 Duration of program

Except with the permission of the Faculty, the Master of Information Technology shall be completed in a minimum of two semesters or a maximum of four semesters.

2 Admission

2.1 The Faculty may accept as a candidate for the degree any person who has completed one of the following at the University of Adelaide:

- Graduate Certificate in Computer Science
- Graduate Diploma in Computer Science
- Bachelor degree that includes a major in Computer Science.

2.2 The Faculty may accept as a candidate for the degree any person who has completed studies at another institution, where those studies are accepted by the University as equivalent to studies specified in 2.1 above.

2.3 Subject to the approval of Council, the Faculty may, in special cases accept as a candidate for the degree a person who does not hold the qualifications specified in 2.1 or 2.2.

2.4 A candidate admitted under 2.3 above will be required to undertake such additional compulsory work as the Faculty may determine. This additional work will not exceed 12 units of study and may be taken concurrently with the Masters study.

2.5 Credit transfer

A candidate who has passed courses in this or other educational institutions and who has not presented these courses towards any award may, on written application to the Faculty, be granted such exemption from the requirements of these rules as the Faculty shall determine. Status may be granted for a maximum of 9 units under 4.2.2 of the Academic Program Rules.

3 Assessment and examinations

3.1 No material presented for any other degree within this or any other institution shall be submitted unless otherwise permitted by the Head of School or nominee.

3.2 There shall be four classifications of Pass in each course for the degree: Pass with High Distinction, Pass with Distinction, Pass with Credit and Pass.

3.3 A candidate shall not be eligible to attend for examination unless the prescribed work has been completed to the satisfaction of the teaching staff concerned. A candidate who is not eligible to attend for examination shall be deemed to have failed the examination.

3.4 A candidate who fails in a course, and desires to take the course again, shall again attend lectures and satisfactorily do such written and practical work as the teaching staff concerned may prescribe, unless specifically exempted after written application to the Faculty for exemption.

3.5 A candidate who has twice failed in any course may not enrol for that course again except by special permission of the Faculty and then only under such conditions as may be prescribed.

3.6 Academic progress

If in the opinion of the Faculty a candidate for the degree is not making satisfactory progress, the Faculty may with the consent of Council, terminate the candidature and the candidate shall cease to be enrolled for the degree.

4 Qualification requirements

4.1 Academic program

To qualify for the degree a candidate shall:

- i satisfactorily complete any additional compulsory work which may be prescribed *and*
- ii satisfy examiners in courses of study prescribed in these rules.

4.2 Courses of study and project work

4.2.1 The program consists of 36 units of study which shall normally extend over one and a half years of full-time study, and consists of two components:

- a computer science courses *and*
- b management courses

4.2.2 To qualify for the degree a candidate shall satisfactorily complete a program of study comprising courses as follows:

- a at least 24 units of non-project courses offered by the School of Computer Science at the Honours or Masters level.

i The courses presented must include:

COMP SCI 7007 Specialised Programming.....3

The requirements of this clause may be waived by the Head of School on a case-by-case basis

ii Courses listed in clause 4.1.1 of the Academic Program Rules for the Graduate Diploma in Computer Science may not be presented

iii A maximum of 9 units of courses listed in clause 4.1.2 of the Academic Program Rules for the Graduate Diploma in

Computer Science may be presented for the degree.

- b the balance made up of any of the following:
 - i information technology related courses as offered at Level IV, Level V, Honours and postgraduate courses drawn from Engineering, and Mathematical and Computer Sciences. Students must have the appropriate prerequisites for the courses selected
 - ii management courses selected from those offered by the Adelaide Graduate School of Business or the Centre for Innovation and Commercialisation as approved by the Postgraduate Coordinator
 - iii other courses to the value of up to 6 units may be included subject to the approval of the Postgraduate Coordinator.
- 4.2.3 No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.
- 4.2.4 To complete a program of study in a course a candidate shall, unless exempted by the Postgraduate Coordinator offering the course:
- a regularly attend the prescribed lectures, tutorials, workshops and seminars *and*
 - b undertake such computing work, project work, practical work, field work and case studies, do such reading, written and oral work and pass such examinations as the head of the school offering the course may prescribe.
- 4.2.5 Each candidate's program of study must be approved by the Postgraduate Coordinator (or nominee) at enrolment each year.

4.3 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.

Notes:

- 1 Not all electives will necessarily be offered in any one year
- 2 Students may be interviewed to assess their suitability for course choices.

Master of Innovation and Entrepreneurship

Note: There will be no further intake into this program.

1 Duration of program

Except with the permission of the Faculty, the Master of Innovation and Entrepreneurship shall be completed in a minimum of three semesters or a maximum of eight semesters

2 Admission

2.1 Except as provided for in 2.2 below, a candidate for admission to the program of study for the Master of Innovation and Entrepreneurship shall have qualified either for the Graduate Certificate in Business Enterprise (SME); or for a degree of the University or another institution accepted by the University for the purpose as equivalent, and shall have had at least 5 years approved professional work experience.

2.2 The Faculty may, in special cases and subject to such conditions (if any) as it may see fit to impose in each case, accept as a candidate for the degree a person who does not qualify for admission to the program under 2.1 above but has given evidence satisfactory to the Faculty of fitness to undertake work for the degree.

2.3 Status, exemption and credit transfer

Except with the special permission of the Faculty, no candidate will be granted status for any course that he or she has presented for another award other than the Graduate Certificate in Business Enterprise (SME) (see 2.4 below). Such status as may be awarded in exceptional circumstances will only be awarded for graduate level studies.

2.4 Articulation with other awards

A candidate who has been admitted to the Graduate Certificate in Business Enterprise (SME) and who has been granted status toward the Master of Innovation and Entrepreneurship for courses presented for the Graduate Certificate must surrender the Graduate Certificate before being admitted to the Master of Innovation and Entrepreneurship.

3 Assessment and examinations

3.1 There shall be four classifications of pass in each course for the Master: Pass with High Distinction, Pass with Distinction, Pass with Credit and Pass.

3.2 A candidate shall not be eligible to attend for examination unless the prescribed work has been completed to the satisfaction of the teaching staff concerned.

3.3 A candidate who fails to pass in a course and desires to take the course again shall again undertake study and satisfactorily do such written and practical work as the teaching staff concerned

may prescribe, unless specifically exempted therefrom after written application to the Faculty for such exemption.

3.4 A candidate who has twice failed the examination in any course or division of a course may not enrol for the course again except by special permission of the Faculty and then only under such conditions as may be prescribed.

3.5 For the purpose of this Rule, a candidate who is refused permission to sit for examination, or who fails to attend all or part of a final examination (or supplementary examination if granted) after being enrolled for at least two thirds of the normal period during which the course is taught, shall be deemed to have failed the examination.

4 Qualification requirements

4.1 To qualify for the Master of Innovation and Entrepreneurship, a candidate shall satisfactorily complete courses to the total value of 24 units, comprising five core courses to the value of 15 units plus elective courses to the value of at least 9 units as given below.

4.1.1 Core courses

TECHCOMM 5016 Entrepreneurship and Innovation	3
TECHCOMM 5005 Financing Commercialisation ..	3
TECHCOMM 5018 Opportunity Assessment	3
TECHCOMM 5019 New Enterprise Marketing	3
TECHCOMM 5020 New Enterprise Operations ...	3

4.1.2 Elective courses

TECHCOMM 5002 Managing Product Design and Development	3
TECHCOMM 5004 Managing Risk	3
TECHCOMM 5007 Legal Issues of the Commercialisation Process	3
TECHCOMM 5008 Leading and Managing	3
TECHCOMM 5021 Applied Project Management 1	3
TECHCOMM 5025 Commercialisation: Process & Strategy	3
TECHCOMM 5028 A/B Project in Entrepreneurship*	9
TECHCOMM 5029 Project in Entrepreneurship (6 units) *	6
TECHCOMM 5030 Project in Entrepreneurship (3 units) *	3
TECHCOMM 7021A/B Project in Entrepreneurship (6 units) *	6

* Before enrolling in these project courses, students need to have passed all core courses.

4.2 Unacceptable combination of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.3 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.

1 Duration of program

Except with the permission of the Faculty, the Master of Marine Engineering shall be completed in a minimum of three semesters or a maximum of twelve semesters.

2 Admission

2.1 Except as provided for in 2.2 below, an applicant for admission to the program shall have qualified for:

- a a four-year degree with Honours in a relevant engineering discipline from the University of Adelaide, or a degree from another institution accepted by the Faculty of Engineering, Computer and Mathematical Sciences as being equivalent *or*
- b a four year degree in a relevant engineering discipline of the University of Adelaide or a degree of another institution accepted by the Faculty of Engineering, Computer and Mathematical Sciences as being equivalent, and have not less than two years full-time (or part-time equivalent) work experience in a relevant field *or*
- c a Graduate Diploma in Marine Engineering.

2.2 The Faculty may, in exceptional circumstances and subject to such conditions (if any) as it may see fit to impose, accept as a candidate for the degree of Master of Marine Engineering, a person who does not qualify in 2.1 above, but has given evidence satisfactory to the Faculty of fitness to undertake work for the degree.

2.3 Status or exemption

A candidate may not present for credit towards the degree any course which has been presented for any other award of this University or other institution, or which in the opinion of the Faculty is substantially similar to such course. Such a candidate will be required to undertake an alternative course as approved by the Head of School or nominee.

A candidate who has passed courses in this or other educational institutions and who has not presented these courses towards an award may, on written application to the Faculty, be granted such exemption from the requirements of these Rules as the Faculty shall determine. Subject to the conditions specified in Clause 4.1 (b), status may be granted for a maximum of 9 units under Clause 4.2 of the Academic Program Rules.

2.4 Articulation with other awards

2.4.1 A candidate who has been enrolled for the Graduate Certificate or Graduate Diploma in Marine Engineering at the University of Adelaide

and who has not been awarded the Graduate Certificate or Graduate Diploma shall, on written application, be permitted to transfer all equivalent courses towards the Masters degree.

2.4.2 A candidate who holds the Graduate Certificate or Graduate Diploma in Marine Engineering from the University of Adelaide shall surrender the Graduate Certificate or Graduate Diploma before being awarded the Masters degree.

3 Assessment and examinations

3.1 There shall be four classifications of pass in any course for the Master Marine Engineering: Pass with High Distinction, Pass with Distinction, Pass with Credit, and Pass. Courses passed with a Conceded Pass classification may not be counted towards the requirements for the degree of Master of Marine Engineering.

3.2 A candidate shall not be eligible to attend for examination unless any prescribed coursework has been completed to the satisfaction of the teaching staff concerned.

3.3 A candidate who fails in a course and desires to take the course again shall again attend the course and satisfactorily do such written and practical work as the teaching staff concerned may prescribe, unless specifically exempted therefrom after written application to the Faculty for such exemption.

3.4 A candidate who has twice failed any course may not enrol for that course again except by special permission of the Faculty and then only under such conditions as may be prescribed.

3.5 For the purpose of this Rule, a candidate who is refused permission to sit for the assessment for a given course, or who without a reason accepted by the Executive Dean of the Faculty (or nominee) fails to attend all or part of the assessment, shall be deemed to have failed that course

4 Qualification requirements

4.1 To qualify for the degree of Master of Marine Engineering, a candidate shall satisfactorily complete courses to a total value of at least 36 units including:

- a i core courses to the value of 9 units from 4.2.1 (a) or (b)
- ii the remaining courses may be chosen from 4.2.2, 4.2.3 or both of them. Candidates are not obliged to complete all of the courses from a particular stream. However, it is suggested that it may be preferable for a candidate to complete all courses listed within the chosen stream.

- b at least 21 units of study must be taken from courses taught by the University of Adelaide.
Candidates must have their program of studies approved by the Postgraduate Coordinator or nominee at enrolment.

4.2 Academic program

4.2.1 Core Courses

a Submarine

University of Adelaide

MECH ENG 7042 Introduction to Submarine Design..... 3

MECH ENG 7046 Submarine Design 102.....3

University of South Australia

Systems Engineering for Complex Problem Solving..... 3

or

TECH COMM 5013 Systems Engineering 1*.. 3

* Only with the permission of the Faculty

b Naval Ships

University of Adelaide

MECH ENG 7048 Introduction to Naval Ship Design.....3

University of South Australia

Systems Engineering for Complex Problem Solving 3

A further course in Naval Ships stream will be available in 2010.

4.2.2 Foundation streams

a Hull stream

University of Adelaide

MECH ENG 7020 Materials Selection & Failure Analysis..... 3

MECH ENG 7023 Fracture Mechanics..... 3

MECH ENG 7025 Topics in Welded Structures 3

MECH ENG 7043 Stresses in Plates and Shells 3

b Electrical stream

University of Adelaide

ELEC ENG 7048 Principles of Control Systems 3

ELEC ENG 7049 Power Electronics Systems.. 3

ELEC ENG 7069 Electrical Energy Systems ...3

MECH ENG 7027 Engineering Acoustics 3

c Mechanical stream

University of Adelaide

MECH ENG 7020 Materials Selection and Failure Analysis..... 3

MECH ENG 7030 Advanced Vibrations 3

MECH ENG 7059 Finite Element Analysis of Structures 3

Australian Maritime College

Design of Marine Machinery Systems..... 3

d Signature stream

University of Adelaide

ELEC ENG 7065 Sonar Sensors & Systems.... 3

MECH ENG 7027 Engineering Acoustics 3

MECH ENG 7030 Advanced Vibrations 3

Curtin University

Physical and Acoustical Oceanography..... 3

e Systems Engineering Stream

University of Adelaide

TECHCOMM 7029 Systems Engineering 2 3

University of South Australia

Management of Small Systems Engineering Design Teams 3

Military Systems - Operational and Technological Integration 3

Requirements Engineering 3

Principles of Test Evaluation..... 3

4.2.3 Electives*

a Hull stream

University of Adelaide

APP MTH 7055 Computational Fluid Dynamics..... 3

CHEM ENG 7047 Composites and Multiphase Polymers 3

MECH ENG 7026 Advanced Topics in Fluid Mechanics 3

MECH ENG 7059 Finite Element Analysis of Structures 3

MECH ENG 7061 Corrosion Principles and Prevention..... 3

Project in Marine Engineering..... 12

either

TECHCOMM 5021 Applied Project Management 1 3

or

RMIT

Risk & Technology Decisions 3

ACA

Coatings Engineering 3

b Electrical Stream

University of Adelaide

ELEC ENG 7046 Power Quality & Fault Diagnosis 3

MECH ENG 7034 Advanced Digital Control ...3

Project in Marine Engineering..... 12

either

TECHCOMM 5021 Applied Project Management 1 3

	<i>or</i>	
	RMIT	
	Risk and Technology Decisions.....	3
	University of South Australia	
	Electromagnetic Compatibility	3
	Curtin University	
	Marine Acoustics.....	3
c	Mechanical Stream	
	University of Adelaide	
	APP MTH 7055 Computational Fluid Dynamics	3
	MECH ENG 7026 Advanced Topics in Fluid Mechanics	3
	MECH ENG 7043 Stresses in Plates and Shells	3
	MECH ENG 7060 Mechanical Signature Analysis.....	3
	Project in Marine Engineering.....	12
	<i>either</i>	
	TECHCOMM 5021 Applied Project Management 1	3
	<i>or</i>	
	RMIT	
	Risk and Technology Decisions.....	3
d	Signature Stream	
	University of Adelaide	
	APP MTH 7075 Fluid Mechanics III	3
	ELEC ENG 7015 Adaptive Signal Processing .	3
	ELEC ENG 7017 Beamforming and Array Processing	3
	MECH ENG 7026 Advanced Topics in Fluid Mechanics	3
	MECH ENG 7060 Mechanical Signature Analysis.....	3
	Project in Marine Engineering.....	12
	<i>either</i>	
	TECHCOMM 5021 Applied Project Management 1	3
	<i>or</i>	
	RMIT	
	Risk and Technology Decisions.....	3
	Curtin University	
	Marine Acoustics.....	3
e	Systems Stream	
	University of Adelaide	
	COMP SCI 7076 Distributed Systems	3
	ELEC ENG 7017 Beam Forming and Array Processing	3
	ELEC ENG 7033 Principles of RF Engineering.....	3

	ELEC ENG 7054 Detection, Estimation and Classification	3
	ELEC ENG 7055 Antennas & Propagation.....	3
	ELEC ENG 7065 Sonar Sensors & Systems....	3
	SIP 7023 Satellite Communications	3
	Project in Marine Engineering.....	12
	<i>either</i>	
	TECHCOMM 5021 Applied Project Management 1	3

	<i>or</i>	
	RMIT	
	Risk and Technology Decisions.....	3

(f) Research

	Marine Engineering Research Project A	6
	Marine Engineering Research Project B	6

4.3 Unacceptable combination of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.4 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.

Graduate Attributes

Postgraduate Programs in Marine Engineering

- Knowledge and understanding of the content and techniques of Marine Engineering at advanced levels that are internationally recognised
- The ability to locate, analyse, evaluate and synthesise information from a wide variety of sources in a planned and timely manner
- An ability to apply effective, creative and innovative solutions, both independently and cooperatively, to current and future problems
- Skills of a high order in interpersonal understanding, teamwork and communication
- A proficiency in the appropriate use of contemporary technologies
- A commitment to continuous learning and the capacity to maintain intellectual curiosity throughout life
- A commitment to the highest standards of professional endeavour and the ability to take a leadership role in the community
- An awareness of ethical, social and cultural issues and their importance in the exercise of professional skills and responsibilities.

1 Duration of program

Except with the permission of the Faculty, the Master of Mathematical Sciences shall be completed in a minimum of two semesters or a maximum of eight semesters.

2 Admission

- 2.1 The Faculty shall appoint one or more supervisors to guide a candidate's work.
- 2.2 The following may be accepted as a candidate for the degree:
- a person who has qualified in the University of Adelaide for the Honours degree of Bachelor of Mathematical and Computer Sciences or the Honours degree of Bachelor of Engineering or the Honours degree of Bachelor of Science in Mathematical Physics, or holds another academic qualification accepted by the Faculty as equivalent.
 - a person who has qualified in the University of Adelaide for the degree of Bachelor of Engineering, Science or Applied Science or holds another academic qualification accepted for the purpose by the Faculty. A person admitted under this sub-Rule will normally be required satisfactorily to complete sufficient work of Honours standard as is deemed necessary by the Faculty in addition to satisfying the requirements of the Masters degree.
- 2.3 Subject to the approval of the Council the Faculty may, in exceptional circumstances and subject to such conditions (if any) as it may see fit to impose in each case, accept as a candidate for the degree a person who does not qualify under 2.2 above but who has given evidence satisfactory to the Faculty of fitness to undertake work for the degree.
- ### 2.4 Preliminary work
- 2.4.1 A person whose qualifications have been accepted under 2.2(a) shall be deemed to have satisfied the requirements of this schedule.
- 2.4.2 A candidate admitted under either 2.1(b) or 2.2 shall complete the requirements of this Rule by undertaking, and satisfying the examiners in, such programs of study and/or other work as may in his or her case be prescribed by the Faculty. The purpose of this schedule is that the person should demonstrate the ability to perform at Honours standard.
- ### 2.5 Academic progress
- If in the opinion of the Faculty a candidate is not making satisfactory progress the Faculty may, with the consent of the Council, terminate the candidature.

3 Qualification requirements

- 3.1 To qualify for the degree a candidate shall:
- pass such examination on the candidate's program of advanced study as may be required by the Faculty *and*
 - present a satisfactory dissertation on the candidate's project.
- ### 3.2 Project work
- Subject to such conditions as it may determine, the Faculty may permit project work to be undertaken outside the University provided that it can be satisfied:
- that this will result in mutual academic benefit to the candidate and the supervising school
 - that there will be adequate contact and interaction between the candidate and the supervising school *and*
 - that the supervisor's access to any experimental work, the candidate's availability for seminars and other discussions, and the publication of results will not thereby be prejudiced.
- ### 3.3 Academic program
- 3.3.1 The program of study and project work to the value of at least 24 units shall consist of:
- supervised project work and seminar presentation from one of the following:

APP MTH 7007 Masters Applied Mathematics Minor Project.....	6
PURE MTH 7008 Masters Pure Mathematics Project	6
STATS 7001 Masters Statistics Project	6

Note: intending students should consult the relevant school early in the year in which they plan to study in order to ascertain whether particular courses will be available in that year, which semester they will be taught and their precise content
 - courses chosen from the following list

Applied Mathematics	
APP MTH 7000 Applied Mathematics Topic D.....	3
APP MTH 7011 Transform Methods and Signal Processing	3
APP MTH 7018 Aerodynamics.....	3
APP MTH 7026 Communication Network Design.....	3
APP MTH 7044 Applied Mathematics Topic C.....	3

APP MTH 7045 Applied Mathematics Topic B	3
APP MTH 7048 Applied Mathematics Topic A	3
APP MTH 7052 Computational Fluid Dynamics	3
APP MTH 7054 System Modelling & Simulation	3
APP MTH 7078 Information Theory	3
Mathematical Physics	
PHYSICS 7004 Advanced Electromagnetism...	3
PHYSICS 7008 Gauge Theory	3
PHYSICS 7009 General Relativity	3
PHYSICS 7014 Relativistic Quantum Mechanics and Particle Physics.....	3
PHYSICS 7015 Statistical Mechanics/ Many-Body Theory	3
PHYSICS 7024 Topics in Mathematical Physics A	3
PHYSICS 7025 Topics in Mathematical Physics B	3
Pure Mathematics	
PURE MTH 7038 Pure Mathematics Topic A ...	3
PURE MTH 7002 Pure Mathematics Topic B ...	3
PURE MTH 7023 Pure Mathematics Topic D ...	3
PURE MTH 7047 Pure Mathematics Topic C ...	3
PURE MTH 7066 Pure Mathematics Topic E ...	3
PURE MTH 7067 Pure Mathematics Topic F ...	3
Statistics	
STATS 7004 Statistics Topic A	3
STATS 7008 Statistics Topic D	3
STATS 7014 Statistics Topic B	3
STATS 7016 Statistics Topic C	3
STATS 7069 Statistics Topic E	3
STATS 7070 Statistics Topic F	3
(c) other courses offered by the University of Adelaide or other tertiary institutions in South Australia which are accepted by the Faculty as being equivalent to those listed above.	
(d) Students may present other relevant courses or work, to the value of at most six units, as may be approved by the Faculty.	

3.3.2 The availability of all courses in any year is conditional on there being adequate staffing levels.

3.4 Unacceptable combinations of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

3.5 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

4 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Master of Mathematical Sciences (Signal and Information Processing)

1 Duration of program

Except with the permission of the Faculty, the Master of Mathematical Sciences (Signal and Information Processing) shall be completed in a minimum of three semesters or a maximum of twelve semesters.

2 Admission

- 2.1 The following may be accepted as a candidate for the degree any person who has qualified for an Honours degree of Bachelor of Science in either Mathematics or Physics or a degree of Bachelor of Engineering (Electrical and Electronic) with Honours of the University of Adelaide, or for an equivalent degree of another tertiary institution accepted for the purpose by the University.
- 2.2 Graduates with Honours in other areas of Engineering, or in related scientific areas, may be accepted at the discretion of the Faculty.
- 2.3 Subject to the approval of the Council, the Board of Studies may, in exceptional circumstances and subject to such conditions (if any) as it may see fit to impose in each case, accept as a candidate for the degree a person who does not qualify under 2.1 or 2.2 but who has given evidence satisfactory to the Board of fitness to undertake work for the degree.

2.4 Status and credit transfer

A candidate who has passed courses in this or other educational institutions and who has not presented these courses towards any award may, on written application to the Faculty, be granted status for a maximum of 4 units under 4.3.2 of the Academic Program Rules.

3 Assessment and examination

Academic progress

If in the opinion of the Board of Studies a candidate for the degree is not making satisfactory progress, the Board may, with the consent of the Council, terminate the candidature.

4 Qualification requirements

- 4.1 To qualify for the degree a candidate shall:
- comply with conditions as prescribed in the Academic Program Rules *and*
 - pass such examinations on the candidate's program of advanced study as may be required by the Board of Studies.

4.2 Unacceptable combinations of courses

Except as provided in 4.3.5, no candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.3 Academic program

4.3.1 A candidate for the degree shall regularly attend lectures and tutorials, do such written and practical work as may be prescribed, and satisfactorily complete courses to the value of at least 36 units as defined in 4.3.2.

4.3.2 The program of study to the value of at least 36 units shall consist of:

- Courses to the value of at least 18 units selected from:

ELEC ENG 7059 Radar Principles and Systems - an Introduction	3
SIP 7001 Information Theory.....	3
SIP 7002 Kalman Filtering and Tracking.....	3
SIP 7004 Mobile Communications.....	3
SIP 7005 Multisensor Data Fusion.....	3
SIP 7012 Detection, Estimation and Classification	3
SIP 7013 Introduction to Discrete Linear Systems.....	3
SIP 7015 Signal Synthesis and Analysis	3
SIP 7017 Specialised Studies A	3
SIP 7018 Specialised Studies B	3
SIP 7019 Specialised Studies C	3
SIP 7020 Specialised Studies D	3
SIP 7023 Satellite Communications	3
SIP 7024 Adaptive Signal Processing	3
SIP 7025 Beamforming & Array Processing....	3
SIP 7026 Mathematical Coding & Cryptology ..	3
SIP 7030 Image Sensors and Processing	3
SIP 7031 Sonar Sensors and Systems.....	3

Specialised Studies may consist of directed readings or short courses as approved by the Faculty. The content and assessment of these courses will be determined in each case by the academic coordinator of the course in consultation with the student's supervisor and the student.

ii Honours and other relevant courses offered by the University of Adelaide or other tertiary institutions in South Australia as may be approved by the Board of Studies.

iii Supervised project work consisting of the course:

MATHS 7008 A/B Mathematical Signal and Information Processing Project..... 6

Note: Intending students should consult the relevant school early in the year in which they plan to study in order to ascertain whether particular courses will be available in that year, which semester they will be taught and their precise content.

4.3.3 Students who are required to undertake preliminary work will normally enrol in the following course:

SIP 7027 A/B Qualifying Studies in Mathematics 12

On satisfactory completion of this work the student will proceed to study as outlined in 4.3.1 above.

4.3.4 The Faculty may grant status of up to 12 units for studies undertaken within an Honours degree in either Mathematics or Physics, or a degree of Bachelor of Engineering (Electrical and Electronic) with Honours of the University of Adelaide, or within an equivalent degree of another tertiary institution. These candidates will still need to present a minimum of 24 units towards the Master of Mathematical Sciences (Signal and Information Processing) that have not been presented for any other degree.

4.3.5 Candidates who are granted exemption from one or more of the courses listed in 4.3.2 (i) on the basis of previous studies may select in their place other relevant courses offered by the University of Adelaide or other tertiary institutions in South Australia as may be approved by the Board of Studies.

4.3.6 The availability of all courses is conditional on there being adequate staffing and resources.

4.4 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the Board of Studies special circumstances exist, the Council, on the recommendation of the Board in each case, may vary any of the provisions of the Academic Program Rules for any particular award.

1 Duration of program

Except with the permission of the Faculty, the Master of Petroleum Business Management shall be completed in a minimum of two semesters or a maximum of eight semesters.

2 Admission

2.1 Except as provided for in 2.2 below, an applicant for admission to the program shall have qualified for a degree with Honours (in a relevant discipline) of the University or of another institution accepted for this purpose by the Faculty.

2.2 The Faculty may, in exceptional circumstances and subject to such conditions (if any) as it may see fit to impose, accept as a candidate for the degree of Master of Petroleum Business Management, a person who does not qualify under 2.1 above, but has given evidence satisfactory to the Faculty of fitness to undertake work for the degree.

2.3 Status or exemption

A candidate may not present for credit towards the degree any course which has been presented as part of the requirements for any other award of this University or other institution, or which in the opinion of the Faculty is substantially similar to such course.

3 Assessment and examinations

3.1 There shall be four classifications of pass in any course for the Master of Petroleum Business Management: Pass with High Distinction, Pass with Distinction, Pass with Credit, and Pass.

3.2 A candidate shall not be eligible to attend for assessment unless the prescribed work has been completed to the satisfaction of the teaching staff concerned.

3.3 A candidate who fails in a course and desires to take the course again shall again attend that course and satisfactorily do such written and practical work as the teaching staff concerned may prescribe, unless specifically exempted therefrom after written application to the Faculty for such exemption.

3.4 A candidate who has twice failed any course may not enrol for that course again except by special permission of the Faculty and then only under such conditions as may be prescribed.

3.5 For the purpose of this Rule, a candidate who is refused permission to sit for the assessment for a given course, or who without a reason accepted by the Executive Dean of the Faculty (or nominee) fails to attend all or part of the assessment, shall be deemed to have failed that course.

3.6 The Research Project shall be approved by the Head of the Australian School of Petroleum (or nominee) and be conducted under the supervision of a member of the academic staff of the University of Adelaide.

3.7 The Faculty may permit the Research Project to be undertaken outside the University provided there will be adequate contact and interaction between the candidate and the candidate's supervisor.

3.8 Evaluation of the Research Project shall be through the submission of a comprehensive report and a presentation. This evaluation shall be conducted jointly by the School's academic staff and industry practitioners nominated by the academic staff.

4 Qualification requirements

4.1 To qualify for the degree of Master of Petroleum Business Management, a candidate shall satisfactorily complete a minimum of 24 units of which at least 10 units must be taken from the list of Compulsory Courses in 4.2 Group A, either 4 or 8 units must be taken as a Research Project in 4.2 Group B, and the remaining units must be taken from the list of Elective courses in 4.2 Group C. The specific list of courses to be taken by any candidate must be agreed by the Program Coordinator at the time of enrolment and will depend on the candidate's prior experience and learning goals.

4.2 Academic program

Group A: Compulsory courses

PETROENG 7006 Petroleum Project Economics ..	2
PETROENG 7009 Decision-Making and Risk Analysis	2
PETROENG 7043 Integrated Field Development Planning and Economics Project.....	3
PETROENG 7049 Advanced Managerial Decision Making & Risk Analysis	3
PETROENG 7052 Oil and Gas Resources and Reserves	3
PETROENG 7053 Reservoir and Project Management	3

Group B: Research project

PETROENG 7014 Project A	4
PETROENG 7046 Project B	4

Group C: Elective courses

PETROENG 7001 Petrophysics	2
PETROENG 7002 Reservoir Engineering	2
PETROENG 7031 Reservoir Characterisation and Modelling	3

PETROENG 7038 Well Testing and Pressure Transient Analysis	3
PETROENG 7040 Enhanced Oil Recovery	3
PETROENG 7042 Drilling Engineering and Well Completion	3
PETROENG 7044 Petroleum Geology & Geophysics	2
PETROENG 7050 Production Engineering & Optimisation	3
PETROENG 7035 Reservoir Simulation	3

The availability of all courses is conditional on the availability of staff and facilities and sufficient enrolments. Each year the Australian School of Petroleum shall determine which courses will be offered and in which semester they will be offered.

4.3 Unacceptable combination of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.4 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.

1 Duration of program

Except with the permission of the Faculty, the Master of Petroleum Engineering shall be completed in a minimum of two semesters or a maximum of eight semesters.

2 Admission

- 2.1 Except as provided for in 2.2 below, an applicant for admission to the program shall:
- have qualified in the University of Adelaide for the degree of Bachelor of Engineering with Honours *or*
 - have qualified for an award accepted by the Faculty of Engineering, Computer and Mathematical Sciences as being equivalent academically and professionally to the degree of Bachelor of Engineering with Honours.
- 2.2 The Faculty may, in exceptional circumstances and subject to such conditions (if any) as it may see fit to impose, accept as a candidate for the degree of Master of Petroleum Engineering, a person who does not qualify under 2.1 above, but has given evidence satisfactory to the Faculty of fitness to undertake work for the degree.

2.3 Status or exemption

A candidate may not present for credit towards the degree any course which has been presented as part of the requirements for any other award of this University or other institution, or which in the opinion of the Faculty is substantially similar to such course.

3 Assessment and examinations

- 3.1 There shall be four classifications of pass in any course for the Master of Petroleum Engineering: Pass with High Distinction, Pass with Distinction, Pass with Credit, and Pass.
- 3.2 A candidate shall not be eligible to attend for examination unless the prescribed work has been completed to the satisfaction of the teaching staff concerned.
- 3.3 A candidate who fails in a course and desires to take the course again shall again attend the course and satisfactorily do such written and practical work as the teaching staff concerned may prescribe, unless specifically exempted therefrom after written application to the Faculty for such exemption.
- 3.4 A candidate who has twice failed any course may not enrol for that course again except by special permission of the Faculty and then only under such conditions as may be prescribed.

3.5 For the purpose of this Rule, a candidate who is refused permission to sit for the assessment for a given course, or who without a reason accepted by the Executive Dean of the Faculty (or nominee) fails to attend all or part of the assessment, shall be deemed to have failed that course.

3.6 The Research Project shall be approved by the Head of the Australian School of Petroleum (or nominee) and be conducted under the supervision of a member of the academic staff of the University of Adelaide.

3.7 The Faculty may permit the Research Project to be undertaken outside the University provided there will be adequate contact and interaction between the candidate and the candidate's supervisor.

4 Qualification requirements

4.1 To qualify for the degree of Master of Petroleum Engineering, a candidate shall satisfactorily complete a minimum of 24 units of which a minimum of 16 units must be taken from the list of Core Courses in 4.2 Group A. The remaining 8 units may be taken from either Group A or Group B. The specific list of courses to be taken by any candidate must be agreed by the Program Coordinator at the time of enrolment and will depend on the candidate's prior experience and learning goals.

4.2 Academic program

Group A: Core courses

PETROENG 7001 Petrophysics	2
PETROENG 7002 Reservoir Engineering	2
PETROENG 7006 Petroleum Project Economics ..	2
PETROENG 7031 Reservoir Characterisation & Modelling	3
PETROENG 7042 Drilling, Engineering and Well Completion	3
PETROENG 7043 Integrated Field Development Planning and Economics Project.....	3
PETROENG 7044 Petroleum Geology & Geophysics	2
PETROENG 7050 Production Engineering & Optimisation	3
PETROENG 7053 Reservoir and Project Management	3

Group B: Elective courses

PETROENG 7009 Decision-Making and Risk Analysis.....	3
PETROENG 7014 Project A	4
PETROENG 7035 Reservoir Simulation.....	3

PETROENG 7038 Well Testing and Pressure Transient Analysis	3
PETROENG 7040 Enhanced Oil Recovery	3
PETROENG 7046 Project B	4
PETROENG 7049 Advanced Managerial Decision Making & Risk Analysis	3
PETROENG 7052 Oil and Gas Resources and Reserves	3

4.3 Unacceptable combination of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.4 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.

1 Duration of program

Except with the permission of the Faculty, the Master of Project Management shall be completed in a minimum of two semesters or a maximum of eight semesters.

2 Admission

2.1 An applicant for admission to the program for the Master of Project Management shall:

- a have qualified for a four-year degree of the University or a degree of another institution accepted by the Faculty for the purpose as equivalent to a four-year degree of the University *or*
- b have qualified for a three-year degree of the University or a degree of another institution accepted by the Faculty for the purpose as equivalent to a three-year degree of the University and have three years' professional work experience.

2.2 The Faculty may, subject to such conditions as it may see fit to impose in each case, accept as a candidate for the Master of Project Management a person who does not satisfy the requirements of Rule 2.1 above but who has presented evidence satisfactory to the Faculty of fitness to undertake work for the Masters.

2.3 Status, exemption and credit transfer

Candidates who have previously passed courses in postgraduate awards or equivalent at the University of Adelaide or another university and who wish to count such courses towards the Master of Project Management may, on written application to the Faculty, be granted such status as the Faculty shall determine, to a maximum aggregate value of twelve (12) units.

2.4 Articulation with other awards

A candidate who has been admitted to the Graduate Certificate in Project Management and who subsequently satisfies the requirements for the Master of Project Management must surrender the Graduate Certificate before being admitted to the Master degree.

3 Assessment and examinations

3.1 There shall be four classifications of pass in any course for the Master degree: Pass with High Distinction; Pass with Distinction; Pass with Credit; and Pass.

3.2 A candidate shall not be eligible to be assessed, by examination or otherwise, unless the prescribed work has been completed to the satisfaction of the teaching staff concerned.

3.3 A candidate who fails a course and wishes to repeat that course, shall, unless exempted partially there from by the Faculty, again complete the required work in the course to the satisfaction of the teaching staff concerned.

3.4 A candidate who has failed a course twice may not re-enrol in that course except by special permission of the Faculty and then only under such conditions as may be prescribed.

3.5 For the purpose of this Rule, a candidate who is refused permission to sit for examination shall be deemed to have failed the examination.

4 Qualification requirements

4.1 To qualify for the Master of Project Management, a candidate shall satisfactorily complete courses to the value of 24 units of which at least 18 units are from the list of core courses.

Note: students should discuss their choice of courses with the Program Coordinator.

4.1.1 Core courses

TECHCOMM 5004 Managing Risk.....	3
TECHCOMM 5014 Project Management Technique.....	3
TECHCOMM 5015 Project and Innovation Finance and Accounting.....	3
TECHCOMM 5021 Applied Project Management 1	3
<i>either</i>	
TECHCOMM 5026 Applied Project Management 2	3
<i>or</i>	
TECHCOMM 5013 Systems Engineering 1*	3
TECHCOMM 7012 Business and Contract Legal Studies	3

4.1.2 Elective courses

Geology 7002 Mineral Exploration for Project Managers.....	3
TECHCOMM 5002 Managing Product Design and Development	3
TECHCOMM 5008 Leading and Managing.....	3
TECHCOMM 5010 Technology Project Management	3
TECHCOMM 5012 Integrated Logistic Support....	3
TECHCOMM 5016 Entrepreneurship and Innovation*	3
TECHCOMM 5018 Opportunity Assessment*	3
TECHCOMM 5022 A/B Project Management Project (9 units) ⁺	9

TECHCOMM 5023 A/B Project Management Project (6 units).....	6
TECHCOMM 5024 Project Management Project (3 units)	3
TECHCOMM 5026 Applied Project Management 2 [#]	3
TECHCOMM 5027 Business and Project Creation*	3
TECHCOMM 5013 Systems Engineering [#]	3
TECHCOMM 7011 Project Management for Professional Services.....	3
TECHCOMM 7020 Technology Project Management 2	3
TECHCOMM 7022 Creativity and Innovation.....	3
TECHCOMM 7023 Carbon Impact & Strategy	3
TECHCOMM 7024 Complex Project Management 1	3
TECHCOMM 7025 Introduction to Climate Change.....	3
TECHCOMM 7029 Systems Engineering 2	3
TECHCOMM 7030 Logistics and Supply Chain Management	3
TECHCOMM 7031 Introduction to Mineral Processing	3
TECHCOMM 7033 Ongoing Carbon Management	3
TECHCOMM 7034 Mine Management and Safety.....	3

* Candidates cannot undertake Opportunity Assessment or Entrepreneurship and Innovation in conjunction with Business and Project Creation.

⁺ Available only to approved students.

[#] Available if not already taken as Core.

4.2 Unacceptable combination of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.3 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Master of Science and Technology Commercialisation

1 Duration of program

Except with the permission of the Faculty, the Master of Science and Technology Commercialisation shall be completed in a minimum of two semesters or a maximum of eight semesters.

2 Admission

- 2.1 An applicant for admission to the program for the Master of Science and Technology Commercialisation shall have qualified for a degree of the University or another institution accepted by the University for the purpose as equivalent, shall have had at least 5 years approved professional work experience..
- 2.2 The Faculty may, subject to such conditions as it may see fit to impose in each case, accept as a candidate for the degree a person who does not satisfy the requirements of Rule 2.1 above but who has presented evidence satisfactory to the Faculty of fitness to undertake work for the degree.

2.3 Status, exemption and credit transfer

Candidates who have previously passed courses in postgraduate awards or equivalent at the University of Adelaide or another university and who wish to count such courses towards the Master of Science and Technology Commercialisation may, on written application to the Faculty, be granted such status as the Faculty shall determine, to a maximum aggregate value of twelve (12) units. Courses completed more than ten years prior to application to Faculty will not be considered.

2.4 Articulation with other awards

- 2.4.1 A candidate for the Master of Science and Technology Commercialisation who does not complete the requirements for the Masters degree but satisfies the requirements for the Graduate Certificate or Graduate Diploma in Science and Technology Commercialisation may be admitted to one or other of those degrees as appropriate.
- 2.4.2 A candidate who has been admitted to the Graduate Certificate or the Graduate Diploma in Science and Technology Commercialisation and who subsequently satisfies the requirements for the Master of Science and Technology Commercialisation must surrender the Graduate Certificate or the Graduate Diploma before being admitted to the Masters degree

3 Assessment and examinations

- 3.1 There shall be four classifications of pass in any course for the Masters degree: Pass with High Distinction; Pass with Distinction; Pass with Credit; and Pass.
- 3.2 A candidate shall not be eligible to be assessed, by examination or otherwise, unless the prescribed work has been completed to the satisfaction of the teaching staff concerned.
- 3.3 A candidate who fails a course and wishes to repeat that course, shall, unless exempted partially therefrom by the Faculty, again complete the required work in the course to the satisfaction of the teaching staff concerned.
- 3.4 A candidate who has failed a course twice may not re-enrol in that course except by special permission of the Faculty and then only under such conditions as may be prescribed.
- 3.5 For the purpose of this Rule, a candidate who is refused permission to sit for examination shall be deemed to have failed the examination.

4 Qualification requirements

4.1 Academic program

To qualify for the Master of Science and Technology Commercialisation, a candidate shall satisfactorily complete courses to the value of 36 units consisting of:

- a 24 units of coursework of which at least 18 units are core courses *and*
- b a 12 unit Project as set out under 4.1.2 below.

Note: students should discuss their choice of courses with the Program Coordinator.

4.1.1 Core courses

TECHCOMM 5001 Marketing Technological Innovation	3
TECHCOMM 5002 Managing Product Design and Development	3
TECHCOMM 5003 Strategic Analysis for Technology Commercialisation	3
TECHCOMM 5005 Financing Commercialisation	3
TECHCOMM 5006 Technology Management and Transfer	3
TECHCOMM 5007 Legal Issues of the Commercialisation Process	3
TECHCOMM 5008 Leading and Managing.....	3
TECHCOMM 5011 Internationalisation of Technology	3

4.1.2 Masters project

TECHCOMM 7006 A/B Masters Project 12

4.1.3 Elective courses

Any postgraduate course taught by the Entrepreneurship, Commercialisation and Innovation Centre (ECIC) except for:

TECHCOMM 5025 Commercialisation:
Process and Strategy 3

TECHCOMM 5027 Business & Project Creation ... 3

4.2 Unacceptable combination of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.3 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Master of Science and Technology Commercialisation (Advanced)

1 Duration of program

Except with the permission of the Faculty, the Master of Science and Technology Commercialisation shall be completed in a minimum of four semesters or a maximum of ten semesters.

2 Admission

2.1 Except as provided for in 2.2 below, a candidate for admission to the program of study for the Master of Science and Technology Commercialisation (Advanced) shall have qualified for a degree of the University or another institution accepted by the University for the purpose as equivalent, shall have had at least 5 years approved professional work experience.

2.2 The Faculty may, subject to such conditions as it may see fit to impose in each case, accept as a candidate for the degree a person who does not satisfy the requirements of Rule 2.1 above but who has presented evidence satisfactory to the Faculty of fitness to undertake work for the degree.

2.3 Status, exemption and credit transfer

Candidates who have previously passed courses in postgraduate awards or equivalent at the University of Adelaide or another university and who wish to count such courses towards the Master of Science and Technology Commercialisation may, on written application to the Faculty, be granted such status as the Faculty shall determine, to a maximum aggregate value of twelve (12) units. Courses completed more than five years prior to application to Faculty will not be considered.

2.4 Articulation with other awards

2.4.1 A candidate for the Master of Science and Technology Commercialisation (Advanced) who does not complete the requirements for this degree but satisfies the requirements for the Graduate Certificate, Graduate Diploma or Master in Science and Technology Commercialisation may be admitted to one or other of those degrees as appropriate.

2.4.2 A candidate who has been admitted to the Graduate Certificate or the Graduate Diploma or the Master in Science and Technology Commercialisation and who subsequently satisfies the requirements for the Master of Science and Technology Commercialisation (Advanced) must surrender the Graduate Certificate or the Graduate Diploma, or the Masters before being admitted to the Master (Advanced) degree.

3 Assessment and examinations

3.1 There shall be four classifications of pass in any course for the Masters degree: Pass with High Distinction; Pass with Distinction; Pass with Credit; and Pass.

3.2 A candidate shall not be eligible to be assessed, by examination or otherwise, unless the prescribed work has been completed to the satisfaction of the teaching staff concerned.

3.3 A candidate who fails a course and wishes to repeat that course, shall, unless exempted partially therefrom by the Faculty, again complete the required work in the course to the satisfaction of the teaching staff concerned.

3.4 A candidate who has failed a course twice may not re-enrol in that course except by special permission of the Faculty and then only under such conditions as may be prescribed.

3.5 For the purpose of this Rule, a candidate who is refused permission to sit for examination shall be deemed to have failed the examination.

4 Qualification requirements

4.1 Academic program

To qualify for the Master of Science and Technology Commercialisation (Advanced), a candidate shall satisfactorily complete courses to the value of 48 units consisting of:

- a 36 units of coursework of which at least 18 units are core courses *and*
- b a 12 unit Project as set out under 4.1.2 below.

Note: students should discuss their choice of courses with the Program Coordinator.

4.1.1 Core courses

TECHCOMM 5001 Marketing Technological Innovation	3
TECHCOMM 5002 Managing Product Design and Development	3
TECHCOMM 5003 Strategic Analysis for Technology Commercialisation	3
TECHCOMM 5005 Financing Commercialisation ..	3
TECHCOMM 5006 Technology Management and Transfer	3
TECHCOMM 5007 Legal Issues of the Commercialisation Process	3
TECHCOMM 5008 Leading and Managing	3
TECHCOMM 5011 Internationalisation of Technology	3

4.1.2 Masters project

TECHCOMM 7006 A/B Masters Project 12

4.1.3 Elective courses

Any postgraduate course taught by the Entrepreneurship, Commercialisation and Innovation Centre (ECIC) except for:

TECHCOMM 5025 Commercialisation:
Process and Strategy 3

TECHCOMM 5027 Business & Project Creation ... 3

4.2 Unacceptable combination of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.3 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.

Graduate Attributes

Postgraduate programs in Science & Technology Commercialisation

Specifically the program aim to develop and provide students opportunity to demonstrate the following:

- Internationally recognised and advanced levels of knowledge and understanding of the process and techniques involved in transforming science and technology into marketable products and services
- An ability to locate, analyse, evaluate and synthesise information from a wide variety of sources in a planned and timely manner to facilitate the assessment and transformation of science and technology into into marketable products and services
- An ability to apply effective, creative and innovative solutions, both independently and cooperatively, to current and future science and technology commercialisation issues, problems and public concern
- Skills of a high order in interpersonal understanding, teamwork and communication in facilitating and implementing science and technology commercialisation
- A commitment to continuous learning and the capacity to maintain intellectual curiosity throughout life that emerges science and technology commercialisation opportunities
- A commitment to the highest standards of professional endeavour and the ability to take a leadership role in science and technology commercialisation.
- An awareness of ethical, social and cultural issues encountered in engaging with science and technology commercialisation within the global context and the importance of exercising professional skills and responsibilities in dealing with associated social and cultural issues.



Master of Science in Mathematical and Computer Sciences

1 General

This document must be read in conjunction with:

- a the General Academic Program Rules for Master by Research Programs (see under Adelaide Graduate Centre, p.18) *and*
- b the Research Student Handbook, published by the Adelaide Graduate Centre.

These documents explain procedures to be followed and contain guidelines on supervision and research for the degree of Doctor of Philosophy and the various Masters Degrees by Research, offered by the University.

All students must comply with both the General Academic Rules and the rules following below, and procedures outlined in the Research Student Handbook.

In addition to the General Academic Program Rules for Masters by Research degrees, in this publication, the following discipline specific rules apply.

2 Admission

- 2.1 Further to Rules 4.1 and 4.2 of the General Program Rules, persons holding the following awards may become candidates for the degree of Master of Science in Mathematical and Computer Sciences:

- a
 - i Bachelors of Arts
 - ii Bachelors of Science
- b Persons who have obtained an Honours degree from a University in a suitable Mathematics or Computer Science discipline, or a qualification deemed by the Research Education and Development Committee to be equivalent.

2.2 Academic program

To qualify for the degree, a candidate shall satisfactorily complete a program of study consisting of one of the following approved options:

- a a candidate shall submit a thesis upon an approved course and shall adduce sufficient evidence that the thesis is his/her own work. The thesis shall give the results of original research or of an investigation on which the candidate has been engaged. A candidate may also submit other contributions to mathematical sciences in support of his/her candidature
- b a candidate shall pursue a program of advanced study comprising one-third coursework* and two-thirds research and shall submit a thesis describing the results of this research. The thesis while subject to the same

conditions as those applying under option (a) would normally be of a less substantial character.

*This represents courses to the value of 15 units over the duration of the program.

2.3 Courses of study

Courses listed in the Academic Program Rules of Masters degrees in Mathematical Sciences and deemed suitable for the degree by the Committee.

Notwithstanding the above, the availability of all courses is conditional on the availability of staff and facilities and sufficient enrolments.

2.4 Unacceptable combinations of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Committee, contains a substantial amount of the same material: and no course or portion of a course may be counted twice towards an award.



1 General

1.1 This document must be read in conjunction with:

- a the General Academic Program Rules for Master by Research Programs (see under Adelaide Graduate Centre, p.18) *and*
- b the Research Student Handbook, published by the Adelaide Graduate Centre.

These documents explain procedures to be followed and contain guidelines on supervision and research for the degree of Doctor of Philosophy and the various Masters Degrees by Research, offered by the University.

All students must comply with both the General Academic Rules and the rules following below, and procedures outlined in the Research Student Handbook.

In addition to the General Academic Program Rules for Masters by Research degrees, in this publication, the following discipline specific rules apply.

2 Assessment and examinations

There shall be four classifications of pass in any course for the degree: Pass with High Distinction, Pass with Distinction, Pass with Credit and Pass.

3 Qualification requirements

3.1 Every candidate for the degree shall complete the following components:

- a coursework, comprising the following compulsory courses:
 - PETROL 7000 Petroleum Geology and Geophysics (B)..... 6
 - PETROL 7001 Petroleum Geology and Geophysics (A)..... 6

- b thesis on an approved research project.

3.2 The Research Education and Development Committee may exempt candidates from the specific coursework if they have qualified for the Honours degree of Bachelor of Science (Petroleum Geology and Geophysics) of the University or an alternative Honours program containing equivalent coursework.

3.3 At the discretion of the Head, Australian School of Petroleum, a candidate may be required to undertake a six to twelve week placement with the industry sponsor of their project, where such a placement will facilitate progress of the research project.



Master of Science (Petroleum Geoscience)

1 Duration of Program

To qualify for the degree a candidate shall satisfactorily complete a program of study comprising 2 semesters of full-time study.

2 Admission

- 2.1 Admission to candidature by the Faculty may be granted to:
- a persons qualified for an Honours degree (Second Class Division A or higher) from the University of Adelaide in a relevant field of study
 - b persons qualified for an Honours degree from another university or tertiary institution equivalent to an Honours degree (Second Class Division A or higher) from the University of Adelaide in a relevant field of study
 - c others having qualified for a Bachelor's degree of the University (with credit average marks) in an approved field of study or an equivalent award in an institution accepted for the purpose by the Faculty and have relevant professional experience.
- 2.2 The Faculty may, subject to such conditions as it may see fit to impose in each case, accept as a candidate for the degree a person who does not satisfy the requirements of Rule 2.1 above but who has presented evidence satisfactory to the Faculty of their fitness to undertake work for the degree.

3 Assessment and examination

- 3.1 There shall be four classifications of pass in any course for the degree and the research project: Pass with High Distinction, Pass with Distinction, Pass with Credit and Pass.
- Students failing to maintain satisfactory academic performance in the coursework may be subject to a review of academic progress and possible termination of candidature.
- 3.2 A candidate for the Master of Petroleum Geoscience, who does not complete the requirements for the Masters degree, but satisfies the requirements for the Graduate Certificate in Petroleum Geology and Geophysics, may be admitted to that award if appropriate.

4 Qualification requirements

To qualify for the degree, a candidate shall obtain an average grade equivalent to Second Class Division A or higher in courses to the value of 24 units, as follows:

4.1 Academic Program

Every candidate for the degree shall satisfactorily complete the following compulsory units with the value of 12 units

- a PETROL 7000 Petroleum Geology and Geophysics 6
- PETROL 7001 Petroleum Geology & Geophysics 6
- and*
- b an approved research project:
PETROL 7002 Research Project (M.Sc. Pet. Geoscience)..... 12

4.2 Unacceptable combinations of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.3 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special Circumstances

When in the opinion of the Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.

1 Duration

Except with the permission of the Faculty, the Master of Sciences (Defence) shall be completed in a minimum of three semesters or a maximum of twelve semesters.

2 Admission requirements

- 2.1 Except as provided for in 2.2 below, an applicant for admission to the program shall have:
- qualified for a degree from the University of Adelaide (or an award deemed equivalent by the Board of Studies) in a discipline related to the proposed field of study *and*
 - had at least 18 months' employment experience in a defence-related industry.
- 2.2 The Board of Studies may, in exceptional circumstances and subject to such conditions (if any) as it may see fit to impose, accept as a candidate for the degree of Master of Sciences (Defence), a person who does not qualify under 2.1 above, but has given evidence satisfactory to the Board of fitness to undertake work for the degree.

2.3 Status or exemption

A candidate may not present for credit towards the degree any course which has been presented as part of the requirements for any other award of this University or other institution, or which in the opinion of the Faculty is substantially similar to such course.

2.4 Articulation with other awards

- 2.4.1 A candidate who has been enrolled for the Graduate Certificate or Graduate Diploma in Sciences (Defence) at the University of Adelaide and who has not been awarded the Graduate Certificate or Graduate Diploma shall, on written application, be permitted to transfer all equivalent courses towards the Masters degree.
- 2.4.2 A candidate who holds the Graduate Certificate or Graduate Diploma in Sciences (Defence) from the University of Adelaide shall surrender the Graduate Certificate or Graduate Diploma before being awarded the Masters degree.

3 Assessment and examinations

- 3.1 There shall be four classifications of pass in any course for the Master of Sciences (Defence): Pass with High Distinction, Pass with Distinction, Pass with Credit, and Pass. Courses passed with a conceded pass classification may not be counted towards the requirements for the degree of Master of Sciences (Defence).
- 3.2 A candidate shall not be eligible to attend for examination unless any prescribed coursework

has been completed to the satisfaction of the teaching staff concerned.

- 3.3 A candidate who fails in a course and desires to take the course again shall again attend the course and satisfactorily do such written and practical work as the teaching staff concerned may prescribe, unless specifically exempted there from after written application to the Board of Studies for such exemption.
- 3.4 A candidate who has twice failed any course may not enrol for that course again except by special permission of the Board of Studies and then only under such conditions as may be prescribed.
- 3.5 For the purpose of this Rule, a candidate who is refused permission to sit for the assessment for a given course, or who without a reason accepted by the Convenor of the Board of Studies (or nominee) fails to attend all or part of the assessment, shall be deemed to have failed that course.

4 Qualification requirements

- 4.1 To qualify for the degree of Master of Sciences (Defence), a candidate shall satisfactorily complete courses from the following list to a total value of at least 36 units. These must include the two core courses from Group A to the value of 6 units and the Research Project (12 units).
- 4.2 Candidates may present courses offered by other universities from a register of approved courses maintained by the Board of Studies, but the total value of these external courses must not exceed 12 units (including the core courses in Group A). Candidates must have their proposed program of studies approved by the Convenor of the Board of Studies or nominee at enrolment.

Group A: Core courses

Both of these courses are offered by the University of South Australia:

Research Methods in a Multidisciplinary Environment.....	3
Systems Engineering for Complex Problem Solving.....	3

Group B: Defence technology stream

DEFSCI 7005 Principles of Control Systems.....	3
DEFSCI 7006 Antennas and Propagation.....	3
DEFSCI 7007 Principles of RF Engineering.....	3
DEFSCI 7029 Kalman Filtering and Tracking	3
DEFSCI 7035 Detection, Estimation and Classification.....	3
DEFSCI 7203 Photonics IV-D	3
DEFSCI 7204 Photonics III-D	3

DEFSCI 7206 Physical Optics III-D	3
DEFSCI 7207 Sonar Sensors and Systems.....	3

Note: special conditions apply to choosing courses with a Photonics theme. There is a preferred sequence within these courses, and candidates should seek guidance on their enrolment pattern. Electromagnetics III contains material which is assumed knowledge in the remaining courses, and should be taken by candidates without this specialist undergraduate Physics background. Further Photonics options may become available.

Group C : Information and communication technology stream

DEFSCI 7000 Cognitive Science: Minds, Brains and Computers	3
DEFSCI 7001 Decision Making in Real Environments.....	3
DEFSCI 7002 Distributed Systems	3
DEFSCI 7003 Artificial Intelligence.....	3
DEFSCI 7009 Modelling Telecommunication Traffic	3
DEFSCI 7019 Statistics in Engineering	3
DEFSCI 7020 Systems Modelling & Simulation	3
DEFSCI 7022 Multimedia Communications	3
DEFSCI 7023 Photonics for Communications	3
DEFSCI 7028 Information Theory.....	3
DEFSCI 7035 Detection, Estimation and Classification.....	3
DEFSCI 7042 Computer Networks and Applications	3
DEFSCI 7043 Communication Networks Design..	3
DEFSCI 7044 Adaptive Business Intelligence.....	3
DEFSCI 7060 Computer Vision.....	3
DEFSCI 7061 Evolutionary Computation.....	3
DEFSCI 7063 Transform Methods & Signal Processing	3
DEFSCI 7210 Human Factors and Ergonomics ...	3

Research Project

DEFSCI 7016 Master of Sciences (Defence) Research Project.....	12
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or

DEFSCI 7016 A/B Master of Sciences (Defence) Research Project.....	12
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The availability of all elective courses is conditional on the availability of staff and facilities and sufficient enrolments.

Other relevant courses may be presented towards the requirements of the Master of Sciences (Defence) with the written approval of the Convenor of the Board of Studies.

4.3 Unacceptable combinations of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Committee, contains a substantial amount of the same

material: and no course or portion of a course may be counted twice towards an award.

4.4 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the Board of Studies special circumstances exist, the Council, on the recommendation of the Board in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Master of Sciences (Defence Signal Information Processing)

1 Duration of program

Except with the permission of the Faculty, the Master of Sciences (Defence Signal Information Processing) shall be completed in a minimum of three semesters or a maximum of twelve semesters.

2 Admission

2.1 The following may be accepted as a candidate for the degree:

Any person who has qualified for an Honours award in Mathematics, Physics or in Electrical and Electronic Engineering; or a Bachelor award that includes a major in either Mathematics or Physics, or for an equivalent degree accepted for the purpose by the University, plus 18 months experience in the Defence industry.

2.2 The Board of Studies may, in exceptional circumstances and subject to such conditions (if any) as it may see fit to impose in each case, accept as a candidate for the degree a person who does not qualify under 2.1 but who has given evidence satisfactory to the Board of fitness to undertake work for the degree.

2.3 Articulation with other awards

2.3.1 A candidate who has been enrolled for the Graduate Certificate or Graduate Diploma in Signal Information Processing at the University of Adelaide and who has not been awarded the Graduate Certificate or Graduate Diploma shall, on written application, be permitted to transfer all equivalent courses towards the Masters degree.

2.3.2 A candidate who holds the Graduate Certificate or Graduate Diploma in Signal Information Processing from the University of Adelaide shall surrender the Graduate Certificate or Graduate Diploma before being awarded the Masters degree.

2.4 Credit transfer

2.4.1 No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

2.4.2 Candidates may present courses offered by other universities from a register of approved courses maintained by the Board of Studies but the total value of these external courses must not exceed 12 units (including the core courses).

3 Assessment and examination

Academic progress

If in the opinion of the Board of Studies a candidate for the degree is not making satisfactory progress, the Board may terminate the candidature.

4 Qualification requirements

4.1 To qualify for the degree a candidate shall satisfactorily complete a total of at least 36 units as defined in 4.3.1.

4.2 Project work

Subject to such conditions as it may determine, the Board of Studies may permit project work to be undertaken outside the University provided that it can be satisfied:

- a that this will result in mutual academic benefit to the candidate and the supervising school or organisation
- b that there will be adequate contact and interaction between the candidate and the supervising school or organisation.

4.3 Academic program

4.3.1 The program of study and project work to the value of at least 36 units shall consist of:

- i **Compulsory courses**
 - Research Methods in a Multidisciplinary Environment* 3
 - Systems Engineering for Complex Problem Solving* 3
 - * Offered at UniSA.
- ii Courses to the value of at least 12 units selected from:
 - DEFSCI 7011 Adaptive Signal Processing 3
 - DEFSCI 7012 Multisensor Data Fusion..... 3
 - DEFSCI 7028 Information Theory..... 3
 - DEFSCI 7029 Kalman Filtering and Tracking... 3
 - DEFSCI 7035 Detection, Estimation and Classification 3
 - DEFSCI 7036 Introduction to Discrete Linear Systems 3
 - DEFSCI 7041 Image Sensors & Processing 3
- iii Courses to the value of at least 6 units selected from either:

- a courses listed in 4.3.1 (ii) *or*
 - b from the following courses:
 - DEFSCI 7015 Mathematical Coding & Cryptology 3
 - DEFSCI 7030 Error Control Coding 3
 - DEFSCI 7031 Mobile Communications 3
 - DEFSCI 7037 Signal Synthesis and Analysis* 3
 - DEFSCI 7038 Specialised Studies D⁺ 3
 - DEFSCI 7039 Satellite Communications..... 3
 - DEFSCI 7060 Computer Vision 3
 - DEFSCI 7063 Transform Methods and Signal Processing* 3
- *Students can not under take both DEFSCI 7063 Transform Methods and Signal Processing and DEFSCI 7037 Signal Synthesis and Analysis.
- ⁺Specialised Studies may consist of directed readings or short courses as approved by the Board of Studies. The content and assessment of these courses will be determined in each case by the academic coordinator of the course in consultation with the student's supervisor and the student.
- c other relevant courses as approved by the Board of Studies from other postgraduate programs of the University.

iv supervised project work

- DEFSCI 7016 Master of Sciences (Defence) Research Project..... 12
- or*
- DEFSCI 7016 A/B Master of Sciences (Defence) Research Project 12

4.3.2 Students who are required to undertake preliminary work will normally enrol in one of the following courses:

- SIP 7027 A/B Qualifying Studies in Mathematics Part 1 & 2..... 12
- SIP 7028 Qualifying Studies in Mathematics..... 12

On satisfactory completion of this work the student will proceed to study as outlined in 6.3.1 above.

4.3.3 Candidates who are granted exemption from one or more of the courses listed in 6.3.1 (ii) and (iii) on the basis of previous studies may select in their place other relevant courses offered by the University of Adelaide or other tertiary institutions in South Australia as may be approved by the Board of Studies.

4.3.4 The availability of all courses is conditional on there being adequate staffing and resources.

4.4 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the Board of Studies special circumstances exist, the Board in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Master of Software Engineering

1 Duration of program

Except with the permission of the Faculty, the Master of Software Engineering shall be completed in a minimum of four semesters or a maximum of sixteen semesters.

2 Admission

2.1 The Faculty may accept as a candidate for the degree any person who has completed one of the following at the University of Adelaide:

- Graduate Diploma in Computer Science
- A bachelor degree that includes a major in Computer Science
- Bachelor of Engineering (Computer Systems Engineering)
- Bachelor of Engineering (Software Engineering)
- Bachelor of Engineering (Telecommunications Engineering).

2.2 The Faculty may accept as a candidate for the degree any person who has completed studies at another institution where those studies are accepted by the University as equivalent to studies specified in 2.1 above.

2.3 The Faculty may, in exceptional circumstances and subject to such conditions (if any) as it may see fit to impose in each case, accept as a candidate for the degree a person who does not qualify under 2.1, but who has given evidence satisfactory to the Faculty of fitness to undertake work for the degree.

3 Assessment and examinations

3.1 Academic progress

If in the opinion of the Faculty a candidate for the degree is not making satisfactory progress, the Faculty may, with the consent of the Council, terminate the candidature and the candidate shall cease to be enrolled for the degree.

4 Qualification requirements

4.1 To qualify for the degree a candidate shall present 48 units of study *and*

- a satisfy examiners in courses of study as prescribed in the Academic Program Rules
- b comply with conditions as prescribed in the Academic Program Rules *and*
- c present a satisfactory written report and public presentations on a supervised project on a course approved by the School of Computer Science.

4.2 Academic program

Note: intending students should consult the School of Computer Science early in the year in which they plan to study in order to ascertain whether particular courses will be available in that year, in which semester they will be taught and their precise content and if they are presentable to their program.

4.2.1 A candidate for the degree shall complete satisfactorily a total of at least 48 units.

4.2.2 A candidate for the degree shall regularly attend lectures and tutorials, do such written and practical work as may be prescribed, and pass examinations in at least 33 units of non-project courses offered by the School of Computer Science at the Honours or Masters level. Other courses may be included, subject to the approval of the Head of the School.

a The courses presented must include:

COMP SCI 7007 Specialised Programming	3
COMP SCI 7015 Software Engineering & Project.....	3
COMP SCI 7023 Software Process Improvement	3
COMP SCI 7054 High Integrity Software Engineering.....	3
COMP SCI 7096A/B Master of Software Engineering Project A/B	15

The requirements of this clause may be waived by the Head of School on a case-by-case basis.

b Courses listed in clause 4.1.1 of the Academic Program Rules for the Graduate Diploma in Computer Science may not be presented.

c A maximum of 12 units of courses listed in clause 4.1.2 of the Academic Program Rules for the Graduate Diploma in Computer Science may be presented for the degree.

4.2.3 The Faculty may grant status of up to the value of 24 units for relevant studies undertaken within an Honours or Masters degree at the University of Adelaide, or within an equivalent degree of another tertiary institution. These candidates will still need to present a minimum of 24 units towards the Master of Software Engineering that have not been presented for any other degree.

4.3 Unacceptable combinations of courses

Subject to 4.2.3 no candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.4 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.

1 Duration of program

Except with the permission of the Faculty, the Master of Water Resource Management shall be completed in a minimum of three semesters or a maximum of twelve semesters.

2 Admission

2.1 Except as provided for in 2.2 below, an applicant for admission to the program shall have qualified for:

- a a Bachelor degree from the University of Adelaide in an Engineering or Science discipline related to the proposed field of study, or a degree of another institution accepted by the Faculty of Engineering, Computer and Mathematical Sciences as being equivalent *or*
- b a four-year degree of the University or a degree of another institution accepted by the Faculty for the purpose as equivalent to a four-year degree of the University and have professional work experience to an appropriate level as assessed at the discretion of the Program Director.

2.2 The Faculty may, in exceptional circumstances and subject to such conditions (if any) as it may see fit to impose, accept as a candidate for the degree of Master of Water Resources Management, a person who does not qualify in 2.1 above, but has given evidence satisfactory to the Faculty of fitness to undertake work for the degree.

2.3 Articulation with other awards

2.3.1 A candidate who has been enrolled for the Graduate Certificate or Graduate Diploma in Water Resources Management at the University of Adelaide and who has not been awarded the Graduate Certificate or Graduate Diploma shall, on written application, be permitted to transfer all equivalent courses towards the Masters degree.

2.3.2 A candidate who holds the Graduate Certificate or Graduate Diploma in Water Resources Management from the University of Adelaide shall surrender the Graduate Certificate or Graduate Diploma before being awarded the Masters degree.

2.4 Status or exemption

Candidates who have previously passed courses in other postgraduate awards at the University of Adelaide or another university and who wish to count such courses towards the degree may, on written application to the Faculty, be granted such status as the Faculty shall determine, to a maximum aggregate value of six (6) units. No

such status will be granted for courses in 4.3 (a). However, candidates may, on written application to the Faculty, be granted permission to substitute courses listed in 4.3 (a) with elective courses to a maximum aggregate value of six (6) units.

3 Assessment and examinations

3.1 There shall be four classifications of pass in any course for the Master of Water Resources Management: Pass with High Distinction, Pass with Distinction, Pass with Credit, and Pass. Courses passed with a Conceded Pass classification may not be counted towards the requirements for the degree of Master of Water Resources Management.

3.2 A candidate shall not be eligible to attend for examination unless any prescribed coursework has been completed to the satisfaction of the teaching staff concerned.

3.3 A candidate who fails in a course and desires to take the course again shall again attend the course and satisfactorily do such written and practical work as the teaching staff concerned may prescribe, unless specifically exempted therefrom after written application to the Faculty for such exemption.

3.4 A candidate who has twice failed any course may not enrol for that course again except by special permission of the Faculty and then only under such conditions as may be prescribed.

3.5 For the purpose of this Rule, a candidate who is refused permission to sit for the assessment for a given course, or who without a reason accepted by the Executive Dean of the Faculty (or nominee) fails to attend all or part of the assessment, shall be deemed to have failed that course.

4 Qualification requirements

4.1 To qualify for the degree of Master of Water Resources Management, a candidate shall satisfactorily complete studies to a total value of at least 36 units comprising:

- a 12 units of core courses in 4.3 (a) *and*
- b 24 units taken from 4.3 (b), (c) and (d).

4.2 At least 18 units of study must be undertaken from courses offered by the University of Adelaide.

Candidates must have their program of studies approved by the Postgraduate Coordinator or nominee at enrolment.

4.3 Academic program

a Core courses

A candidate shall undertake and complete satisfactorily each of the following:

WRM 7000 Global Water Systems I (Natural Water Cycle).....	3
WRM 7002 Global Water Systems II (Engineered Water Cycle).....	3
WRM 7003 Water Resources and Society.....	3
WRM 7004 Water Resources Planning & Management	3

b Electives

A candidate shall undertake and complete satisfactorily four of the following courses (12 units), at least three courses (9 units) must be taken from one of the streams:

Management of Water Infrastructure

University of Adelaide

WRM 7011 Environmental Modelling, Management and Design.....	3
WRM 7012 Water Resources Optimisation and Modelling.....	3
WRM 7013 Water Distribution Systems & Design.....	3
WRM 7014 Coastal Engineering and Design.....	3
WRM 7021 GIS for Environmental Management	3
WRM 7022 Analysis of Rivers and Sediment Transport.....	3
WRM 7023 Water Resources Sustainability and Design.....	3

University of South Australia

BUIL 5017 Facilities and Asset Performance	
BUIL 5018 Facilities Program Management	
BUIL 5019 Asset Management Service Delivery	
BUIL 5020 Sustainability in Assets and facilities	
BUIL 5022 Engineering Infrastructure Management	
BUSS 5256 Strategic Asset Management	
GEOE 5001 Introduction to Geographic Information Systems	

Deakin University

SEV710 Risk and Environmental Sustainability	
SEV714 Coastal Engineering Management	
SEN724 Water Resources Systems Analysis	
SEN743 Water Resources Engineering	
SEN744 Environmental Systems	

Central Queensland University

ENMM20010 Introduction to Maintenance Engineering	
ENMM20011 Establishing the Maintenance	

Strategy

ENMM20012 Maintenance Organisation	
ENMM20013 Maintenance Systems and Documentation	
ENMM20015 Auditing Maintenance Systems	

Water Quality and Treatment

University of Adelaide

WRM 7010 Wastewater Engineering and Design.....	3
WRM 7011 Environmental Modelling, Management and Design.....	3
WRM 7013 Water Distribution Systems and Design.....	3

University of South Australia

CHEM 5007 Water Quality Fundamentals and Processes N	
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CIVE 5048 Advanced Water Quality and Wastewater Management	
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CIVE 5065 Design of Flood and Drainage Systems	
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CIVE 5066 Water Quality Modelling	
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CIVE 5067 Water Quality Management	
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Deakin University

SEN711 Environmental Systems Design	
SEN740 Water Treatment Processes	
SEN741 Wastewater Treatment Processes	
SEN745 Water Reclamation and Reuse	

Ecosystem Catchment Management

University of Adelaide

WRM 7021 GIS for Environmental Management ..	3
WRM 7024 Freshwater Ecology.....	3
WRM 7025 Ecosystems Modelling for Environmental Management	3
WRM 7026 Integrated Catchment Management ..	3

Deakin University

SEV710 Risk and Environmental Sustainability	
SQE718 Integrated Catchment Management: Concepts, Principles and Planning	
SQE719 Integrated Catchment Management: Practical Tools for Assessment and Implementation	
SQE720 Aquatic Ecosystems Management and Rehabilitation	

Central Queensland University

EVST20003 Environmental Risk Management	
EVST20012 Water Management 1	

The following streams are not offered at the University of Adelaide

- Groundwater Hydrology/Hydrogeology
- Irrigation
- Water Planning

Unstreamed Electives

- WRM 7015 Epidemiology of Infectious Diseases 3
- WRM 7017 Biostatistics 3
- WRM 7018 Epidemiological Research Methods..... 3
- WRM 7020 Industrial Toxicology..... 3
- WRM 7027 Environmental Economics EIII 3

c Other courses

With permission from the Faculty, the following course may be presented in lieu of an elective course :

- WRM 7007 Research Methodology* 3
- WRM 7009 Specialised Studies I 3

* This course is a prerequisite for WRM 7008 Research Project and WRM 7006 Major Industry Project listed in (d) below

Other relevant courses may be presented towards the requirements of the degree with the approval of the Faculty.

d Additional course

In addition to (a) and (b), 12 units of study must be taken from the one of the following options:

Study Option 1

Four additional courses (12 units) chosen from (b) and/or (c)

Study Option 2

Two additional courses (6 units) chosen from (b) and/or (c) plus

- WRM 7005 Minor Industry Project..... 6

Study Option 3

- WRM 7008 Research Project 12

Study Option 4

- WRM 7006 Major Industry Project..... 12

4.4 Unacceptable combination of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty concerned, contains a substantial amount of the same material; and no course or portion of a course may be counted twice towards an award.

4.5 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

5 Special circumstances

When in the opinion of the relevant Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.

