Graduate Diploma in Mathematical Sciences

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 below, an applicant for admission to the program of study for the Graduate Diploma in Mathematical Sciences shall have qualified for a degree from the University of Adelaide or for a degree of another institution accepted for the purpose by the Faculty as equivalent.

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

2.3 Applicants for the Graduate Diploma will be expected to have a knowledge of mathematics equivalent to that which would be obtained by passing two Level II courses offered by the School of Mathematical Sciences (i.e. 6 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 To qualify for the degree of Graduate Diploma in Mathematical Sciences, a candidate shall satisfactorily complete courses to a total value of 24 units including:

a courses to the value of at least 12 units from 4.2.1 and 4.2.2

b courses to the maximum value of 9 units chosen from 4.2.3

c project work to the maximum value of 6 units from 4.2.4

d other courses equivalent to Level III or higher chosen from those offered by other Schools in the University of Adelaide, may be included subject to the approval of the Faculty.

4.1.2 At least 18 units of study must be taken from 4.2.1, 4.2.2, 4.2.3 and 4.2.4

4.2 Academic program

4.2.1 APP MTH 7056 Random Processes 3
APP MTH 7064 Computational Mathematic 3
APP MTH 7065 Applied Probability 3
APP MTH 7069 Variational Methods and Optimal Control 3
APP MTH 7070 Financial Modelling 3
APP MTH 7071 Differential Equations 3
APP MTH 7072 Optimisation 3
APP MTH 7075 Fluid Mechanics 3
APP MTH 7076 Maths Biology 3
APP MTH 7089 Mathematical Modelling in Nanotechnology 3
APP MTH 7090 Stochastic Decision Theory 3
PURE MTH 7050 Fields and Geometry 3
PURE MTH 7051 Fractal Geometry 3
PURE MTH 7053 Number Theory 3
PURE MTH 7054 Complex Analysis 3
PURE MTH 7055 Topology and Analysis 3
PURE MTH 7059 Groups and Rings 3

PURE MTH 7061 Methods of Modern Mathematics 3
PURE MTH 7064 Logic and Computability 3
PURE MTH 7071 Integration and Analysis III 3
PURE MTH 7107 Coding and Cryptology III 3
PURE MTH 7108 Geometry of Surfaces 3
STATS 7054 Statistical Modelling 3
STATS 7056 Biostatistics 3
STATS 7057 Sampling Theory & Practice 3
STATS 7058 Time Series 3
STATS 7059 Mathematical Statistics 3
STATS 7073 Industrial Statistics 3

4.2.2 Courses chosen from those listed in clause 3.3.1(c) of the Academic Program Rules for the Master of Mathematical Sciences.

4.2.3 MATHS 7100 Real Analysis 3
MATHS 7101 Multivariable & Complex Calculus 3
MATHS 7102 Differential Equations 3
MATHS 7103 Probability & Statistics 3
MATHS 7104 Numerical Methods 3
APP MTH 7105 Optimisation and Operations Research 3
PURE MTH 7106 Algebra 3
STATS 7107 Statistical Modelling & Inference 3

4.2.4 Project
APP MTH 7085 Applied Mathematics Diploma Project 3
PURE MTH 7069 Pure Mathematics Diploma Project 3
STATS 7071 Statistics Diploma Project 3

The topics and level of such project work will be decided in consultation with a supervisor appointed by the Faculty.

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

4.2.6 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.

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.