Honours in the School of Mathematics and Statistics

An Overview

1 Introduction

This document provides some introductory information about the Honours year in the School of Mathematics and Statistics. An electronic version of this document with live links as well other important information (e.g. scholarships) is available at the School’s Honours webpage. Detailed information including courses offered and potential project topics and supervisors is available in the detailed guides for each of the three areas of Applied Mathematics, Pure Mathematics and Mathematical Statistics.

The program coordinators for the three areas are currently

- **Applied Mathematics**: Robert.Marangell@sydney.edu.au
- **Pure Mathematics**: Laurentiu.Paunescu@sydney.edu.au
- **Mathematical Statistics**: Uri.Keich@sydney.edu.au

2 Entry requirements

Preliminary entrance into the honours program is through the Faculty of Science. The Faculty requirements which must be met include:

- qualifying for the pass degree with a relevant major;
- having a SCIWAM of at least 65.

In addition, the School of Mathematics and Statistics has some extra criteria:

- 24 credit points in relevant Senior units of study, (some of which are compulsory and/or should be completed at the Advanced level: see the appropriate detailed guides for listings of these);
- of these relevant units, those at the
  - Advanced level should have an average mark of at least 65;
  - Normal level should have an average mark of at least 75;
- prospective student should actively seek a supervisor.

Please note the Faculty of Science Honours application deadline (for Honours commencement in Semester 1, 2018) is Thursday 30 November 2017.
3 Structure of Honours

An Honours year in Mathematics and Statistics involves six courses (worth 60% of the final mark) and a project (worth 40%). Formally, each student is administered by one of the three main areas of Applied Mathematics, Pure Mathematics and Mathematical Statistics; this is determined by the project topic and supervisor.

3.1 The Honours project (40%)

The Honours project centres around an essay/thesis consisting of 50-60 pages written on a particular topic from your chosen area. It need not contain original research (although it might) but it should clearly demonstrate that you have understood and mastered the material. The assessment of the honours thesis is based on the mathematical/statistical content and its exposition, including the written English.

As part of the project you will make a short (20-25 minutes) presentation on your project to staff members and fellow students.

3.2 Course work (60%)

There is a wide scope to mix and match courses from the three areas (subject to the approval of your supervisor and the relevant Honours co-ordinator). Courses may require pre-requisites from Senior units of study: see the appropriate detailed guides for listings of these.

Full-time students normally attend three lecture courses each Semester, for a total of six courses. All six courses will count towards the student’s final assessment. If a student takes more than six courses in total then the top six results will count towards the student’s final assessment. See the three detailed guides for details of the various courses.

Students are also advised to check the courses offered in January at the AMSI Summer School and also courses available via the Advanced Collaborative Environment (ACE).

4 Prizes and Awards

University Medal
Awarded to Honours students who perform outstandingly. The award is subject to Faculty rules, which requires an honours mark over 90 and a SCIWAM of 80 or higher. More than one medal may be awarded in any year in a particular area.

Joye Prize in Mathematics Value: $5300, with medal and shield
Awarded to the most outstanding student completing Honours in the School of Mathematics and Statistics.

There is also a range of additional prizes awarded to honours students for proficiency, an outstanding thesis or the best seminar presentation in Applied Mathematics, Pure Mathematics or Mathematical Statistics. See the three detailed guides for details of the various prizes.
Potential students from other states should be aware of the $6000 valued Honours Relocation Scholarship.