APPLICATION FOR HONOURS IN MATHEMATICS & STATISTICS

If you intend to study honours in Mathematics & Statistics in the next calendar year, please complete the **Intention** form page 2 and return it to the undersigned by 1 December. Because not all units will be offered in any one year, we need the information for planning purposes. In every case, we will plan your course with you at the time of your enrolment, which will take place in late November or early December. If you are not sure yet, but think you like to be considered for honours studies in the next calendar year, you should also fill in the form. Information regarding the units available in the honours year are attached.

Should you have any other queries, please feel free to discuss with me or any member of staff.

Associate Professor Kevin Bowman  
Undergraduate Co-ordinator  
Department of Mathematics and Statistics
Intention to Study Honours in ___________ (insert year)

The completion of this form in no way commits you to enrol for Honours next year unless you actually complete an enrolment form at the end of the current academic year. The information collected from this form is meant for planning purposes only.

Name: ___________________________ Student I.D.: __________________

Residential Address: __________________________________________________________

_________________________________________ Postcode: _________________________

Postal Address (if different from above): _________________________________________

________________________________________

Telephone(s): ________________________ Mobile: _________________________

I like to do my dissertation on a topic from: (tick one or two topics below)

__ Applied Mathematics __ Graph Theory

__ Numerical Analysis __ Operations Research __ Probability & Statistics

__ Other (Specify) ____________________________

(If you are not sure, leave this blank)

I have passed or I am now studying the following third year units: (put a tick beside the relevant units you have passed and a C beside the ones you are currently enrolled in)


__ Mathematics Proj. 391      __ Math. Topics 302  __ Mathematics 302

__ Num. Analysis 301       __ Op. Research 301 __ Statistical Inference. 301

__ Sys. Th. & Cont. 302

Other (completed units which have been discontinued should be listed also)

___________________________________________________________________________

___________________________________________________________________________

___________________________________________________________________________

Signature: ___________________________ Date: ______________________

Return this page to the Undergraduate Coordinator by 1 December
HONOURS IN MATHEMATICS

What is Honours in Mathematics?
Honours in Mathematics is a fourth year of full time study after you have completed the requirements for your general degree. Satisfactory completion of the Honours year leads to the award of the degree of Bachelor of Science (Mathematics) (Honours).

Are there any advantages in studying Honours?
The holder of an Honours degree will definitely have enhanced employment opportunities. If you enjoy mathematics, then you can indulge yourself and do some interesting research work in your favourite area of mathematics (applied modelling, discrete optimisation, operations research or statistics). If you are thinking of further studies, now or in the future, then an Honours degree is a necessity.

What criteria are used for selection for Honours?
Most of the advanced units at Honours level have third or second year Mathematics units as prerequisites. You will therefore be expected to have done a sufficient number of Mathematics units to allow you to proceed. In general, you will be expected to have a semester weighted average of above 65 in at least the last two semesters of your general degree.

What are the units available for Honours?
You must enrol in Mathematics Honours Dissertation 497* and Mathematics Honours Dissertation 498 plus two other units each semester selected from the following list. Note that not every unit will be available every year.

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<th>Algebra 402</th>
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<td>Asymptotic Methods 401</td>
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<td>Mathematics Honours Dissertation 497</td>
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<tr>
<td>Measure and Probability 401</td>
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<td>Time Series Modelling 404</td>
<td>Numerical Analysis 402</td>
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*A list of Honours Dissertation Topics will be available by December, and will be posted to each person who has expressed an intention to enrol for Honours.

Who should I speak to if I have further queries?
Feel free to discuss your options with the undergraduate coordinator, Assoc. Prof. Kevin Bowman, or any other member of staff. There is most likely a program that will suit your particular background.
Honours Dissertation 497 and 498

All honours students will enrol in Honours Dissertation 497 during the first semester of their enrolment, followed by Honours Dissertation 498.

**Honours Dissertation 497** consists of supervised reading and students will be expected to spend at least 5 hours a week on this unit. A detailed list of topics to be completed will be available from the supervisor. On completion of all the set work, a report will then be written up by the student, with the following headings:

1. Title of the dissertation topic
2. Object of the dissertation
3. Significance of the topic to knowledge, the sciences or the industrial community
4. Background to the topic: this will consist of a description consisting of a minimum of 500 words, citing references where applicable.
5. Methodology: the method(s) to be followed is to be described in sufficient details to show that the student has understood what is required. This section should consist of a minimum of 200 words.
6. References: a standard method for citing references, as required by one of the major refereed journals, should be followed.

Two copies of the report should be handed in, one copy to the supervisor, and one copy to the undergraduate coordinator, by mid-May. The supervisor and the undergraduate coordinator or his nominee will examine the report and determine if any revision needs to be done. If the report is considered satisfactory by the undergraduate coordinator, the student will be informed and an ungraded pass will be recorded at the Board of Examiners Meeting for that semester. Once the report is considered satisfactory, the student can commence work on Honours Dissertation 498 although the enrolment is for the following semester. This is to ensure that the well motivated student will not be held back.

**Honours Dissertation 498** consists of supervised research under the guidance of the supervisor. The preparation for this dissertation should be covered in Honours Dissertation 497. The work to be covered will be set out clearly by the supervisor and the student is expected to complete most of the work by mid-October and to present an Honours seminar based on the work during the week free from classes in the last week of September. The assessment of Honours Dissertation 498 will be based on the guidelines as used in previous years. A copy of the guidelines will be available for each honours student on enrolment.