VICTORIA UNIVERSITY OF WELLINGTON SCHOOL OF MATHEMATICS AND STATISTICS

MATH 487/488/489

PROJECT

2024

As part of the Honours year, students are expected to sign up for 30 points of project-based work under the MATH 487/488/489 labels; this could be two 15-point projects. Students are responsible for finding supervisor(s) for their project work.

Course Coordinator. Hung Pham (MATH Honours Coordinator), room CO 440, email: hung.pham@vuw.ac.nz.

Course Objectives.

- (1) To carry out a supervised individual research project, and to write a report that gives a coherent survey of findings and demonstrates mastery of the material.
- (2) To contribute to group discussions about writing and presenting mathematics.

The Report Document. This should be 20–30 pages for a one-trimester 15-point project (MATH 487, 488) and 30–40 pages for a full-year 30-point project (MATH 489).

A high standard of exposition and readability is expected, and sufficient time should be allowed for the writing of a clear, concise and logical report that has been carefully edited and proof-read, and is appropriately formatted with a title page, abstract, table of contents, introduction, list of references etc.

The report should be produced using a suitable typesetting application, preferably LaTeX. Resources will be made available through the Honours Seminar.

Submission Deadline. The report must be submitted by the last day of teaching for the course, which is Friday 31 May for trimester 1, and Friday 11 October for trimester 2, by emailing it as a PDF file to the supervisor and to the Honours Coordinator.

Supervision. Students are expected to meet once a week with their supervisor for an hour or so. Some supervisors may expect the student to produce a piece of writing each week. Others may ask the student to email in advance what they expect from the meeting, and to send an email afterwards with their plan for the next week's work. Others again may just ask the student to report orally at the meeting, and discuss progress problems and plans.

Workload. 10-12 hours per week, including weekly meetings with the supervisor and meeting with the cohort in the Honours seminar.

Oral Presentations. Students are expected to give two presentation about their project. This is regarded as an important component of the student's research education and training. The first will be a 10-minute presentation to the MATH 487/488/489 students and the Honours Coordinator in the Honours Seminar, at a time to be negotiated. Towards the end of the semester the project is due, at a time to be scheduled, each student is expected to give a presentation of about 20 minutes duration with 5 minutes for questions.

Assessment. The report will be assessed by the supervisor, and will be read by other staff members as examiners. The supervisor and examiners will agree on a letter grade for the report in a meeting chaired by the Honours Coordinator. The final grade for the course will be the grade for the report, but the quality of the oral presentation will be taken into account if that helps the student.

Award of a grade in the A range will require a high quality of presentation and clear evidence of an excellent understanding of advanced material.