POSITION DESCRIPTION

Position Title: Lecturer/Senior Lecturer in Applied Mathematics

School/Unit: Mathematics & Statistics

Faculty/Division: Science

Level: B/C

JOB PURPOSE
To contribute actively to the Department of Applied Mathematics' teaching activities across a range of undergraduate and post-graduate courses; and to conduct research in applied mathematics in fields such as fluid dynamics, nonlinear phenomena, biomathematics, computational mathematics and/or optimization.

MAIN DUTIES
- Teach service mathematics courses to a range of audiences at the University
- Teach specialist undergraduate majors in Applied Mathematics (including honours level)
- Contribute to the design and delivery of teaching programs and courses in the above areas
- Actively carry out mathematical research with view to publication in influential and high-impact scholarly journals
- Present research findings at seminars and conferences within the School, the UNSW environment, and externally
- Undertake administrative duties as specified by the School
- Participate in School, Faculty and/or University committees as required
- Cooperate with all health and safety policies and procedures of the university and take all reasonable care to ensure that their actions or omissions do not impact on the health and safety of others in the university

ENVIRONMENT

Position Context and Statistics
The School of Mathematics and Statistics currently has 53 continuing academic staff, around 21 research staff and a number of visiting academics. The School also employs up to 70 sessional tutoring staff each semester. The school typically has approximately 7,500 individual students in 10,000 course enrolments over 150 active courses. For administrative purposes, it is split into departments of Applied Mathematics, Pure Mathematics and Statistics.

In addition to teaching students of science, engineering and other areas, the School is one of Australia's most important centres for mathematical and statistical research. Its research consistently ranks among the top two or three in Australia across a variety of measures including the numbers of journal publications, numbers of citations, numbers of citations per paper, amount of external funding, and Excellence in Research Australia aggregate score.

The School has established the Australian Centre for Commercial Mathematics (ACCM) whose mission is to conduct projects with industry to solve complex problems using advanced mathematics and statistics. The projects will be medium to large-scale in size and duration; and will have research value in terms of novel applications of mathematics, as well as commercial value to the client.

The School's undergraduate programs cover a wide spectrum of courses in Pure and Applied Mathematics and Statistics. Its postgraduate programs include coursework degrees (at Graduate Diploma and Masters levels) and vigorous research programs leading to MSc and
PhD degrees. Currently the School has about 70 postgraduate students of whom approximately 50 are enrolled in the PhD program. Over the past thirty years, the School has graduated more than two hundred research students, many of whom have gone on to distinguished careers in Australia and throughout the Asian region.

The Department of Applied Mathematics has active research groups in ocean physics, fluid dynamics, nonlinear phenomena, biomathematics computational mathematics and optimization. Its academic staff members provide specialist teaching in Applied Mathematics in all undergraduate levels (including honours) and perform a major part of the School's service teaching. The Department has a vigorous postgraduate research program. The Department has an outstanding record in attracting external research support and operates an extensive visitors program for research collaboration. The Department has links with the Climate Change Research Centre (CCRC) based in the Faculty of Science at UNSW.

REPORTING RELATIONSHIPS

Supervisor’s title: The position reports to the Head of School via the Head of Department of Applied Mathematics.

Positions reporting to this position: The incumbent may be required to supervise PhD students or research associates funded on their grants.

PRINCIPAL ACCOUNTABILITIES

- Courses are developed and taught to a wide range of students across the School's undergraduate and postgraduate programs
- Relevant research is conducted, presented and published, maintaining the school's strong, competitive standing in research output

SELECTION CRITERIA

Essential Criteria

- Research Doctorate in a relevant branch of science
- Evidence of effective teaching, including service teaching or an aptitude and willingness to do so
- Demonstrated evidence of research ability and potential in applied mathematics
- Excellent written and oral communication skills
- Knowledge and understanding of EEO/AA and OH&S principles; and willingness to implement required OHS policies and safe work practice

Additional Essential criteria for Senior Lecturer appointment

- Proven research achievement at the international level
- A significant publication record in internationally refereed journals
- Evidence of effective teaching, including service teaching, at undergraduate and postgraduate levels