MAST90063 Probability & Mathematical Statistics II

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	This subject is not offered in 2013.
Time Commitment:	Contact Hours: 36 hours comprising one 2-hour lecture per week and one 1-hour practice class per week. Total Time Commitment: 3 contact hours and 7 hours private study per week.
Prerequisites:	Both of the following subjects, or equivalent:

Subject	Study Period Commencement:	Credit Points:
MAST20026 Real Analysis	Not offered 2013	12.50
MAST30020 Probability and Statistical Inference	Semester 1	12.50

Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	For the purposes of considering requests for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements for this entry. The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the Disability Liaison Unit website: http://www.services.unimelb.edu.au/disability/
Contact:	Dr Owen Jones: **odjones@unimelb.edu.au (mailto:borovkov@unimelb.edu.au)** Associate Professor Aurore Delaigle: **aurored@unimelb.edu.au (mailto:aurored@unimelb.edu.au)**
Subject Overview:	The first part of the course deals with advanced probability theory and rigorously derives a number of fundamental results. The second part of the course gives a mathematical treatment of nonparametric curve estimation, wherein the results presented in the first part play a crucial role.
Objectives:	After completing this subject students should: # have developed an understanding of the measure theoretic framework of modern probability theory; # have developed an understanding of key limit theorems of Probability Theory and the techniques used to prove them; # have developed an understanding how these results are applied in Mathematical Statistics, especially in the context of nonparametric curve estimation.
Assessment:	Up to 40 pages of written assignments (20%: two assignments worth 10% each, due mid and late in semester), a 3-hour written examination (80%, in the examination period).
Prescribed Texts:	None
Recommended Texts:	TBA
Breadth Options:	This subject is not available as a breadth subject.

Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	In addition to learning specific skills that will assist students in their future careers in science, they will have the opportunity to develop generic skills that will assist them in any future career path. These include: # problem-solving skills: the ability to engage with unfamiliar problems and identify relevant solution strategies; # analytical skills: the ability to construct and express logical arguments and to work in abstract or general terms to increase the clarity and efficiency of analysis; # collaborative skills: the ability to work in a team; # time-management skills: the ability to meet regular deadlines while balancing competing commitments.
Related Course(s):	Master of Philosophy - Engineering Master of Science (Mathematics and Statistics) Ph.D.- Engineering
Related Majors/Minors/ Specialisations:	Mathematics and Statistics