School of Mathematics

Course 251 - Probability and Theoretical Statistics (SF MSISS, SF Mathematics, JS TSM )

Lecturer: Dr. K. Mosurski

Requirements/prerequisites: 151

Duration: 24 weeks

Number of lectures per week: 3

Assessment: assignments taken into account in final result.

End-of-year Examination: One 3-hour examination

Description: The objectives of the course are:

1. To demonstrate a methodology for handling random outcomes.
2. To teach the rules and methods of probability manipulation.
3. To teach the methods of distribution theory.
4. To present the methods and philosophy of statistical modelling.
5. To introduce the use of computers in statistical modelling.

Course Content


Probability and Moment Generating Functions, Characteristic Functions.


Assessment

Exercise sheets may be handed out during the course. These will be marked and returned to the students. During the Easter vacation the students are expected to carry out team projects based on the course to date. These will involve the use of the computer package MINITAB. Teams will present the results of the projects to the class.

Students may opt out of the above assessments although they are strongly advised not to do so.

A standard College exam will be held in June with a supplemental (if required) in September.

Marking
June Mark = max (f1, f2) where: f1 = 0.8 exam + 0.2 (cts. assessment), f2 = exam. 
Note this formula maybe adjusted to take account of extra/fewer exercises given to students.
Supplemental mark = exam

Textbooks:


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