The University of Western Australia  
SCHOOL OF MATHEMATICS AND STATISTICS  
STAT7441 4S1 Statistical Inference  
Semester 1, 2009  

Course Information

Lecturer Dr Nazim Khan, Room 2.09  
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Proposed Course Content

1. Non Parametric Statistical Methods  
   One sample tests, two sample tests, three or more sample tests, goodness of fit tests, rank correlation tests.  
   (Approximately 20 lectures.)

2. Bayesian Statistics  
   (Approximately 5 lectures.)

3. Decision Theory  
   (Approximately 5 lectures.)

4. Likelihood Inference  
   (Approximately 5 lectures.)

Course Format  
There will be six lectures per fortnight and a two hour laboratory class per fortnight.

Note: If there is not enough time one of the last three topics will not covered.

Class times
   Lectures  
   Odd weeks: Monday 9:15 am to 10:45 am  
   Even weeks: Monday and Wednesday, 9:15 am to 10:45 am

   Laboratory class  
   Odd Weeks, Monday 2pm to 4pm

All lectures will be in Room G.04 in the School of Mathematics and Statistics and all laboratory classes will be in the Mathematics Computing Laboratory.

Assessment

3 Projects  15% each  
Three hour Final Exam @ 55%   
Total  100%

Assessment Schedule

Project 1  Due 5pm Monday 30 March  
Project 2  Due 5pm Monday 20 April  
Project 3  Due 5pm Monday 18 May
The projects should be handed to me in my office.

Late submission of Assessment Late submission of assignment solutions will attract a penalty of 20% per day unless a later date for submission is negotiated prior to the due date.

Academic dishonesty While discussion with your colleagues is encouraged, the solution to the assignments must be your own work. If any evidence of plagiarism is found, it will be investigated and an appropriate penalty will be imposed. *Solutions that are obviously copied will receive a mark of zero.*

See the Faculty policy,


Appeals The policy on examinations and appeals are set out at


References

The following books (on non-parametric statistics) have been put on close reserve in the MPSL.


References to the latter part of the lecture material will be added to this list (and will be provided in class).

Generic skills/outcome statement Students are able to apply statistical reasoning to analyse the essential structure of problems in various fields of human endeavour; extend their knowledge of statistical techniques and adapt known solutions to different situations; present results in a logical and coherent fashion; undertake continuous learning, aware that an understanding of fundamentals is necessary for effective application; gain facility in a range of statistical software, including R, SAS and SPSS.

Nazim Khan
March 2009