

COURSE SPECIFICATION FORM
for new course proposals and course amendments

Department/School:	Mathematics	Academic Session:	2020-21
Course Title:	Statistical Inference	Course Value: (UG courses = unit value, PG courses = notional learning hours)	200 h
Course Code:	MT5432	Course JACS Code: (Please contact Data Management for advice)	G350
Availability: (Please state which teaching terms)	Term 2	Status:	Optional Condonable
Pre-requisites:		Co-requisites:	-
Co-ordinator:	-		
Course Staff:	-		
Aims:	This module provides the theory underlying the main principles and methods of statistics, and, in particular, an introduction to the theory of estimation and hypothesis testing.		
Learning Outcomes:	On completion of the module, students should be able to demonstrate a familiarity with the theoretical background of the concepts and results in the theory of estimation and hypothesis testing, and formulate statistical problems in mathematical terms; understand and construct mathematical proofs of some of the main theoretical results of mathematical statistics; understand the concepts and results in the asymptotic theory of estimation.. The student should be able to demonstrate a breadth of understanding appropriate for an M-level course.		
Teaching & Learning Methods:	40 hours of lectures. 160 hours of private study, including work on problem sheets and examination preparation. This may include discussions with the course leader if the student wishes.		
Key Bibliography:	Statistical Inference – G Casella and R L Berger (Duxbury 2001) Library reference 518.1 CAS Mathematical Statistics and Data Analysis – J A Rice (Duxbury 2006) Library reference 518.3 RIC John E Freund's Mathematical Statistics – I Miller and M Miller (Prentice Hall 2003) Library reference 518.3 FRE Probability and Statistical Inference – R V Hogg and A T Tanis (Prentice Hall 2005) Library reference 518.1 HOG		
Formative Assessment & Feedback:	Formative assessment in the form of 8 problem sheets. The students will receive feedback as written comments on their attempts.		
Summative Assessment:	Exam: A two hour written exam: 85%. Coursework: Set exercises: 15%.		