

University of Pretoria Yearbook 2016

Mathematical statistics 143 (WST 143)

Qualification	Undergraduate
Faculty	Faculty of Economic and Management Sciences
Module credits	8.00
Programmes	BCom (M) Four-year programme BSc Extended programme - Mathematical Sciences BSc Extended programme - Physical Sciences
Service modules	Faculty of Natural and Agricultural Sciences
Prerequisites	BSc and BCom numeric students: WST 133 and WTW 133 and must be taken concurrently with WTW 143.
Contact time	1 practical per week, Foundation Course, 4 lectures per week, MAMELODI, 2 tutorials per week
Language of tuition	English
Academic organisation	Statistics
Period of presentation	Semester 2

Module content

Probability and inference:

Probability theory and theoretical distributions for continuous random variables (Uniform, Normal and t).

Sampling distributions (means and proportions). Estimation theory and hypothesis testing of sampling averages and proportions (one- and two-sample cases).

Optimisation techniques with economic applications:

Applications of differentiation in statistic and economic related problems. Integration. Applications of integration in statistic and economic related problems. Systems of equations in equilibrium. The area under a curve and applications of definite integrals in Statistics and Economics. Report writing and presentation. Identification, use, evaluation and interpretation of statistical computer packages and statistical techniques.

The information published here is subject to change and may be amended after the publication of this information. The [General Regulations \(G Regulations\)](#) apply to all faculties of the University of Pretoria. It is expected of students to familiarise themselves well with these regulations as well as with the information contained in the [General Rules](#) section. Ignorance concerning these regulations and rules will not be accepted as an excuse for any transgression.