University of Pretoria Yearbook 2016

Statistics 123 (STK 123)

Qualification	Undergraduate
Faculty	Faculty of Economic and Management Sciences
Module credits	12.00
Programmes	BAdmin Public Management
	BCom Business Management
	BCom Communication Management
	BCom Economic and Management Sc
	BCom Entrepreneurship
	BCom Human Resource Management
	BCom Informatics: Information Systems
	BCom Law
	BCom Marketing Management
	BCom Option: Supply Chain Management
	BCom Recreation and Sports Management
	BEd Senior Phase and Further Education and Training Teaching
	BA Option: Sport and Recreation Management
	BConsumer Science Clothing: Retail Management
	BConsumer Science Foods: Retail Management
	BConsumer Science Hospitality Management
	BScAgric Agricultural Economics: Agribusiness Management
Service modules	Faculty of Education
	Faculty of Humanities
	Faculty of Natural and Agricultural Sciences
Prerequisites	STK 113 GS
Contact time	1 tutorial per week, 1 practical per week, 3 lectures per week
Language of tuition	Both Afr and Eng
Academic organisation	Statistics
Period of presentation	Semester 2

Module content

*On its own, STK 113 and 123 will not be recognized for degree purposes, but exemption will be granted for STK 110.

Optimisation techniques with economic applications: Data transformations and relationships with economic applications, operations and rules, linear, quadratic, exponential, hyperbolic and logarithmic functions; systems of equations in equilibrium, system of linear inequalities, solving of linear programming problems by means of the graphical and extreme point methods. Applications of differentiation and integration in statistic and economic related problems: the limit of a function, continuity, rate of change, the derivative of a function, differentiation rules, higher order derivatives, optimisation techniques, the area under a curve and applications of definite integrals. Probability and inference: Theoretical distributions. Sampling distributions. Estimation theory and hypothesis testing of sampling averages and proportions (one-sample and two-sample cases). Identification, use, evaluation and interpretation of statistical computer packages and statistical techniques. The weekly one hour practical is presented during the last seven weeks of the semester.