University of Pretoria Yearbook 2022

Biometry 120 (BME 120)

Qualification	Undergraduate
Faculty	Faculty of Economic and Management Sciences
Module credits	16.00
NQF Level	05
Programmes	BIT (Information Systems)
	BSc (Information and Knowledge Systems)
	BSc (Meteorology)
	BSc (Biochemistry)
	BSc (Biological Sciences)
	BSc (Biotechnology)
	BSc (Chemistry)
	BSc (Culinary Science)
	BSc (Ecology)
	BSc (Entomology)
	BSc (Food Science)
	BSc (Genetics)
	BSc (Geography and Environmental Science)
	BSc (Human Genetics)
	BSc (Human Physiology)
	BSc (Human Physiology, Genetics and Psychology)
	BSc (Medical Sciences)
	BSc (Microbiology)
	BSc (Nutrition)
	BSc (Physics)
	BSc (Plant Science)
	BSc (Zoology)
	BSc extended programme - Biological and Agricultural Sciences
	BSc extended programme - Physical Sciences

	BScAgric (Agricultural Economics and Agribusiness Management)
	BScAgric (Animal Science)
	BScAgric (Applied Plant and Soil Sciences)
	BScAgric (Plant Pathology)
	BVSc
Service modules	Faculty of Engineering, Built Environment and Information Technology
	Faculty of Natural and Agricultural Sciences
	Faculty of Veterinary Science
Prerequisites	At least 4 (50-59%) in Mathematics in the Grade 12 examination, or at least 50% in both Statistics 113, 123
Contact time	1 practical per week, 4 lectures per week
Language of tuition	Module is presented in English
Department	Statistics
Period of presentation	Semester 2

Module content

Simple statistical analysis: Data collection and analysis: Samples, tabulation, graphical representation, describing location, spread and skewness. Introductory probability and distribution theory. Sampling distributions and the central limit theorem. Statistical inference: Basic principles, estimation and testing in the one- and two-sample cases (parametric and non-parametric). Introduction to experimental design. One- and twoway designs, randomised blocks. Multiple statistical analysis: Bivariate data sets: Curve fitting (linear and non-linear), growth curves. Statistical inference in the simple regression case. Categorical analysis: Testing goodness of fit and contingency tables. Multiple regression and correlation: Fitting and testing of models. Residual analysis. Computer literacy: Use of computer packages in data analysis and report writing.