



University of Pretoria Yearbook 2021

Statistics 122 (STC 122)

Qualification Undergraduate

Faculty Faculty of Economic and Management Sciences

Module credits 13.00

NQF Level 05

Programmes BCom Informatics Information Systems

BCom Investment Management

BCom Statistics and Data Science

BIT Information Systems

BSc Computer Science

BSc Information and Knowledge Systems

BSocSci Philosophy, Politics and Economics

BScAgric Agricultural Economics and Agribusiness Management

Prerequisites

At least a 60% in STK 110 or an average of 60% for either (1) WST 133, WST 143, WST 153; (2) STK 113, STK 123, STK 121; (3) STK 133, STK 134, STK121; (4) WST 133, WST 143, STK 121 (An aegrotat exam is available to students who obtained 50%-59%)

Contact time 1 practical per week, 1 tutorial per week, 3 lectures per week

Language of tuition Module is presented in English

Department Statistics

Period of presentation Semester 2

Module content

Inferential concepts. Experimental and observational data. Measures of association, uncertainty and goodness of fit. Sampling error and accuracy of estimation. Introduction to linear regression, reduction of variation due to regression. Conditional distributions of residuals. Simulation based inference: conditional means and prediction intervals. Bivariate data visualisation. Supporting mathematical concepts. Statistical concepts are demonstrated and interpreted through practical coding and simulation within a data science framework.

This module is also presented as a summer school for students who initially elected and passed STK 120 with a final mark of at least 60% and then decides to further their studies in statistics as well as for students who achieved a final mark of between 40% - 49% in STC 122 during semester 2.

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General Regulations (G Regulations) apply to all faculties of the University of Pretoria. It is expected of each student to familiarise himself or herself 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.