



University of Pretoria Yearbook 2022

Statistics 123 (STK 123)

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| Qualification | Undergraduate |
| Faculty | Faculty of Economic and Management Sciences |
| Module credits | 12.00 |
| NQF Level | 05 |
| Programmes | BCom (Informatics) Information Systems BAdmin (Public Management and International Relations) BCom BCom (Business Management) BCom (Human Resource Management) BCom (Marketing Management) BCom (Supply Chain Management) BA |
| Service modules | Faculty of Humanities |
| Prerequisites | STK 113 GS |
| 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

*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 probability distributions (revision only). 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.



The regulations and rules for the degrees published here are subject to change and may be amended after the publication of this information.

The [General Academic Regulations \(G Regulations\)](#) and [General Student Rules](#) apply to all faculties and registered students of the University, as well as all prospective students who have accepted an offer of a place at the University of Pretoria. On registering for a programme, the student bears the responsibility of ensuring that they familiarise themselves with the General Academic Regulations applicable to their registration, as well as the relevant faculty-specific and programme-specific regulations and information as stipulated in the relevant yearbook. Ignorance concerning these regulations will not be accepted as an excuse for any transgression, or basis for an exception to any of the aforementioned regulations.