

# University of Pretoria Yearbook 2021

## Statistics 143 (STK 143)

<b>Qualification</b>	Undergraduate
<b>Faculty</b>	<a href="#">Faculty of Economic and Management Sciences</a>
<b>Module credits</b>	16.00
<b>NQF Level</b>	05
<b>Programmes</b>	<a href="#">BCom extended programme</a>
<b>Prerequisites</b>	STK 133 and WTW 133 or STK 133 and WTW 135 GS or STK 133 and WTW 133 BAM 133 or WST 133 and WTW 135 GS.
<b>Contact time</b>	1 practical per week, 2 tutorials per week, 6 lectures per week, Foundation Course
<b>Language of tuition</b>	Module is presented in English
<b>Department</b>	Statistics
<b>Period of presentation</b>	Semester 2

### Module content

Optimisation techniques with economic applications: 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 and indefinite integrals in Economic and Probability applications. Introduction to probability theory. Probability and inference: Theoretical distributions. Sampling distributions. Estimation theory and hypothesis testing of sampling averages and proportions (one-sample and two-sample cases). Non Parametric tests. Report writing and presentation. Identification, use, evaluation and interpretation of statistical computer packages and statistical techniques.

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