

# University of Pretoria Yearbook 2021

## Statistics 310 (STK 310)

**Qualification** Undergraduate

**Faculty** [Faculty of Economic and Management Sciences](#)

**Module credits** 25.00

**NQF Level** 07

**Programmes** [BCom](#)

[BCom Economics](#)

[BCom Informatics Information Systems](#)

[BCom Investment Management](#)

[BCom Law](#)

[BCom Statistics and Data Science](#)

[BIT Information Systems](#)

**Service modules** Faculty of Engineering, Built Environment and Information Technology

Faculty of Humanities

Faculty of Natural and Agricultural Sciences

**Prerequisites** STK 210, STK 220

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

**Language of tuition** Module is presented in English

**Department** Statistics

**Period of presentation** Semester 1

### Module content

Supervised learning. Linear and non-linear regression. Ordinary least squares and maximum likelihood estimation. Violations of the assumptions, residual analysis. Cross validation. Statistical inference. Bootstrap inference. Supporting mathematical concepts. Statistical concepts are demonstrated and interpreted through practical coding and simulation within a data science framework.

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