

University of Pretoria Yearbook 2021

Introduction to statistical learning 720 (EKT 720)

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| Qualification | Postgraduate |
| Faculty | Faculty of Economic and Management Sciences |
| Module credits | 15.00 |
| NQF Level | 08 |
| Programmes | BComHons Mathematical Statistics BComHons Statistics and Data Science BScHons Mathematical Statistics BScHons Statistics and Data Science |
| Service modules | Faculty of Natural and Agricultural Sciences |
| Prerequisites | RAL 780 or WST 311, 312, 321 |
| Contact time | 1 lecture per week, 1 web-based period per week |
| Language of tuition | Module is presented in English |
| Department | Statistics |
| Period of presentation | Semester 2 |

Module content

The emphasis is on the theoretical understanding and practical application of advances in statistical modelling. The following topics are covered: Single equation models: Nonparametric regression. Bootstrap procedures within regression analysis, k-nearest neighbour classification. Modelling categorical dependent variables - Logit/Probit models. Multiple outputs. Linear regression of an indicator matrix. Ridge regression. Non-linear regression modelling. Some new developments in regression and classification. Simultaneous equation models: Specification, identification and estimation of simultaneous equation models.

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