



# University of Pretoria Yearbook 2019

## Introduction to statistical learning 720 (EKT 720)

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| <b>Qualification</b>          | Postgraduate   |
| <b>Faculty</b>                | <a href="#">Faculty of Economic and Management Sciences</a>  |
| <b>Module credits</b>         | 15.00  |
| <b>Programmes</b>             | <a href="#">BComHons Mathematical Statistics</a><br><a href="#">BComHons Statistics</a><br><a href="#">BScHons Mathematical Statistics</a> |
| <b>Service modules</b>        | Faculty of Natural and Agricultural Sciences   |
| <b>Prerequisites</b>          | RAL 780 or WST 311, 312, 321   |
| <b>Contact time</b>           | 1 web-based period per week, 1 lecture per week  |
| <b>Language of tuition</b>    | Module is presented in English   |
| <b>Department</b>             | Statistics   |
| <b>Period of presentation</b> | 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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