



University of Pretoria Yearbook 2020

Applied statistical methods and optimisation 798 (SHC 798)

| | |
|-------------------------------|--|
| Qualification | Postgraduate |
| Faculty | Faculty of Engineering, Built Environment and Information Technology |
| Module credits | 24.00 |
| Programmes | BEngHons Geotechnical Engineering BEngHons Transportation Engineering BEngHons Water Resources Engineering |
| Prerequisites | No prerequisites. |
| Contact time | 40 Contact hours |
| Language of tuition | Module is presented in English |
| Department | Civil Engineering |
| Period of presentation | Year |

Module content

A research term paper will be prepared.

The course will apply some of the basics theories and methodologies in statistics and operations research to solve common civil engineering problems. The course seeks to demonstrate the use and application in the civil engineering field. Each of the applications seeks to determine how best to design and operate a system, usually under conditions requiring the allocation of scarce resources. Emphasis will be on the applications of these methods in common civil engineering practice. Some of the applications will include; optimum network design, maximum flow problem, project scheduling, queuing theory, probabilistic analysis, Markov chain applications, etc.

The information published here is subject to change and may be amended after the publication of this information. The [General Regulations \(G Regulations\)](#) apply to all faculties of the University of Pretoria. It is expected of students to familiarise themselves well with these regulations as well as with the information contained in the [General Rules](#) section. Ignorance concerning these regulations and rules will not be accepted as an excuse for any transgression.