Applied statistical methods and optimisation 798 (SHC 798)

Qualification	Postgraduate
Faculty	Faculty of Engineering, Built Environment and Information Technology
Module credits	32.00
Programmes	BEngHons Geotechnical Engineering
	BEngHons Structural Engineering
	BEngHons Transportation Engineering
	BEngHons Water Resources Engineering
Prerequisites	No prerequisites.
Contact time	40 Contact hours
Language of tuition	English
Academic organisation	Civil Eng
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.