

## University of Pretoria Yearbook 2019

## Basic structural design 793 (SIC 793)

**Qualification** Postgraduate

Faculty Faculty of Engineering, Built Environment and Information Technology

Module credits 24.00

**Programmes** BScHons Applied Science Structure

**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

This course comprises two sections: reinforced concrete design and structural steel design.

Reinforced concrete design covers the design of beams; behaviour and design of slabs; design of slender columns and columns subjected to bi-axial bending; design of simple and combined footings; staircase design; and an introduction to prestressed concrete.

Structural steel design covers the characteristics of steel; design of structural steel members including elements in bending, and bending combined with tension and compression; design of portal frames; composite construction and the bending resistance of composite sections; and plastic design.

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