University of Pretoria Yearbook 2016

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 Applied Science: Structures
	BScHons Applied Science Applied Science: Water Resources
Prerequisites	No prerequisites.
Contact time	40 Contact hours
Language of tuition	English
Academic organisation	Civil Eng
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.