

University of Pretoria Yearbook 2021

Basic structural design 793 (SIC 793)

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| Qualification | Postgraduate |
| Faculty | Faculty of Engineering, Built Environment and Information Technology |
| Module credits | 24.00 |
| NQF Level | 08 |
| 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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