

University of Pretoria Yearbook 2019

Concrete technology 794 (SGC 794)

| | |
|-------------------------------|--|
| Qualification | Postgraduate |
| Faculty | Faculty of Engineering, Built Environment and Information Technology |
| Module credits | 24.00 |
| Programmes | BEngHons Structural 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.

Properties of concrete and concrete mixes. Characteristics of Portland cement and supplementary cementitious materials. Aggregates, admixtures and practical design of mixes. Manufacture, curing and testing, including non-destructive methods. Statistical approach to quality control. Time-dependent behaviour and durability of concrete. The principles for appropriate selection of materials and techniques for repair, maintenance and strengthening of civil engineering structures. Investigation and diagnosis. Corrosion of reinforcement. Alkali-aggregate reaction, sulphate attack. Physical degradation. Repair materials. Protective systems. Systems for repair.

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.