

# University of Pretoria Yearbook 2021

## Computer networks 780 (ERN 780)

**Qualification** Postgraduate

**Faculty** [Faculty of Engineering, Built Environment and Information Technology](#)

**Module credits** 32.00

**NQF Level** 08

**Prerequisites** No prerequisites.

**Contact time** 32 contact hours per semester

**Language of tuition** Module is presented in English

**Department** Electrical, Electronic and Computer Engineering

**Period of presentation** Semester 1

### Module content

Review of computer networks infrastructure: The review will cover elementary concepts in computer networks; covering data communications, wide area networks, and local area networks.

Networking protocols: This section will explore both the architectural principles and mechanisms required for the exchange of data among computers, workstations, servers, and other data processing devices. Much of the material in this part relates to the TCP/IP protocol suite. Recent developments and state-of-art issues will also be focused upon.

Applications, service models and convergence of networks: This section will look at the application layer and explore various service models in the context of convergence. Students will be introduced to various Next Generation Networks technologies and issues.

Modelling and simulation: This section will cover research issues in computer networks. Students will be introduced to modelling, simulation techniques and tools.

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.