

ICT5250 Computer Networks and Security

Unit Description

In this unit, students will examine the hardware and system software components required to build computer systems. Students begin by considering how computers function as individual device and how networked systems are constructed and function. Standard network communication layer models are examined. A detailed examination of IP addressing and routing issues are undertaken to enable students to link, configure, evaluate various network components and protocols and to design moderately complex networks. Foundational concepts in computer and information security considered in earlier units are examined in more detail as are approaches to securing IT systems.

Credit Points	8 credit points
Duration	12 weeks (10 teaching weeks and 2 revision and assessment weeks)

Unit Learning Outcomes

On successful completion of this unit, students will be able to:

1. Compare the architecture and components of CPUs, computer, and computer networks.
2. Design local area networks.
3. Appraise technical concepts and frameworks for securing information, computers, and networks.
4. Critique the essential elements of modern network security methodologies and technologies.