

BIS2001 IT Infrastructure and Networking

Unit Description

This unit deals with hardware and system software components needed to run IT applications. It introduces how infrastructure components work on an architectural level using building blocks to describe the infrastructure model. This unit focusses on networking and data communications as a major part of IT infrastructure model. Describing the network models to be described using OSI and TCP layered models with the focus on physical, data link, network, transport, and application layers. Topics covered include IT infrastructure components and model; communication media; media access control; IP network addressing and routing; and the network design using traditional and building block. Cloud computing and virtualisation are introduced with the characteristics and benefits. This unit also covers security threats and network controls. This unit also draw focus on improving the management of networks and information systems, as well as implications for the management of the organisation.

Credit Points	6 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. Demonstrate an understanding of layered networking models, computer network architectures and components.
2. Design and plan IP networks and IT infrastructure solutions for businesses, allowing scaling of applications.
3. Implement moderately complex networks with industry standard technologies like CISCO routers and switches.
4. Solve data communication and networking problems using rigorous analysis techniques.
5. Appraise different types of network security devices and how they can be used.