

Module: Operating Systems 261

Module name:	Operating Systems 261
Code:	OPS261
NQF level:	6
Type:	Fundamental – Diploma in Information Technology (Infrastructure stream)
Contact Time:	78 hours
Structured Time	12 hours
Self-directed time	90 hours
Notional hours:	180 hours
Credits:	18
Prerequisites:	SEC261

Purpose

The course is designed to give a solid foundation in server administration using the latest server operating systems. It equips students with hands-on experience to power next generation cloud optimised networks, applications, virtualisation, network management and storage capabilities, information access and protection. Students will also gain in-depth knowledge of latest management tools available for performing post deployment tasks on a server environment.

Outcomes

Upon successful completion this module, the student will be able to:

- Demonstrate a detailed understanding of the role of IT control and service management frameworks in managing a large-scale organisational IT server infrastructure.
- Evaluate select and apply different sources of information and management in respect of making appropriate decisions on which server role to implement.
- Identify, analyse and solve problems related to installation and configuration of the server enterprise environment.
- Assess the ethical implications of security and privacy issues in managing various objects within an enterprise network.
- Use appropriate and emerging technologies to improve performance of server operating systems and discover the cause of performance problems in a system.

Assessment

- Continuous evaluation of theoretical work through two written assignments, one project, two formative tests, and a summative test.
- Continuous evaluation through tracking of progress, offering support, guidance and provision of constant stream of opportunities to prove mastery of subject material and pursuing more challenging work as they master the basics.
- Final assessment through a written examination.

Teaching and Learning

Learning materials

Prescribed books (EBSCO)

 **Windows Server Administrator Cookbook**

Additional Material

 **Savill, J., 2016. Mastering Windows Server 2016 Hyper-V. John Wiley**

Learning activities

Learning will be facilitated by the lecturer with student centred activities that involve problem-based learning where pupils are presented with challenges that replicate the situation in the real-world environment. This will be achieved through a combination between presentation of theoretical concepts, guided exercises, group work and discussions during the module.

Notional learning hours

Contact	Distance	Other	Type of learning activities	% Learning
y	y	n	Lectures (face-to-face, limited interaction or technologically mediated)	40%
y	y	n	Tutorials: individual groups	20%
n	y	n	Syndicate groups	10%
n	y	n	Independent self-study of standard texts and references (study guides, books, journal articles)	10%
n	y	n	Independent self-study of specially prepared materials (case studies, multi-media, etc.	20%

Syllabus

- Introduction to Managing the latest Microsoft Windows Server Environment.
- Installing Windows Server
- Installing Active Directory Domain Services
- Configuring DNS for Active Directory Services
- Creating Active Directory Domain Services User and Computer Objects
- Creating Groups and Organizational Units
- Managing Access to Resources in Active Directory Domain Services
- Configuring Active Directory Objects and Trusts.
- Printing on the network.
- Managing Users with Active Directory Users and Computers.
- Configuring and Troubleshooting DHCP.
- Configuring roaming and mandatory profiles.