

Module: Operating Systems 261

Module name:	Operating Systems 261
Code:	OPS261
NQF level:	6
Type:	Fundamental – Diploma in Information Technology (Infrastructure stream)
Contact Time:	72 hours
Structured Time	10 hours
Self-directed time	78 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 3 written assignment, 3 formative, and a summative test.
- Continuous evaluation of project work, where the student must design, manage and report on the evaluation of testing methodologies and the selection of an appropriate methodology for a given scenario, justifying the choice made with well-formed arguments and evidence.
- Final assessment through a written examination.
- The assignments or projects collectively will count 30% of your class mark.
- All tests will collectively account for 70% of your class mark.

- Your class mark contributes 30% towards your final mark for the subject, while the final assessment accounts for 70% of your final mark.

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

The teaching and learning activities consist of a combination of formal lectures on theoretical and practical concepts, exercises and discussions. Three mandatory assignments and two projects must be completed during the course. The experiences and progress on these practical components form the content of class discussions.

Notional learning hours

Activity	Units	Contact Time	Structured Time	Self-Directed Time
Lecture		52.0		26.0
Formative feedback		13.0		
Project	2	7.0		12.0
Assignment	3			9.0
Test	4		8.0	16.0
Exam	1		2.0	15.0
		72.0	10.0	78.0

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.