

Module Title:	Systems Administration
Language of Instruction:	English
Credits:	5
NFQ Level:	6
Module Delivered In	5 programme(s)
Teaching & Learning Strategies:	Learning is divided into lecture and practical sessions over one semester. The practical sessions will provide students with hands on experience in configuring, managing and administering single and multi user computer systems. It will also provide the opportunity to implement and reinforce material presented in the lectures, to learn by doing.
Module Aim:	To provide learners with the necessary skills to manage and administer single-user and multi-user computer systems.
Learning Outcomes	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	Demonstrate theoretical and practical knowledge in user and disk management.
LO2	Implement and schedule scripts to automate common system administration tasks.
LO3	Integrate core administrative services across a system infrastructure.
Pre-requisite learning	
Module Recommendations	
<i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i>	
No recommendations listed	
Incompatible Modules	
<i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i>	
No incompatible modules listed	
Co-requisite Modules	
No Co-requisite modules listed	
Requirements	
<i>This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.</i>	
Should have working knowledge of Operating Systems and Networks.	

Module Content & Assessment

Indicative Content

User and Group Management

Create, modify and delete local user accounts and groups, modify user and group attributes, configure user environment, privileged accounts.

Disk Management

Attaching disks, creating partitions, formatting and building file systems, mounting and unmounting, logical volume management.

Shell Scripting

Scripting introduction, loops, conditionals, functions, writing shell scripts that automate system management functions.

Backup Management and Scheduling

Backup devices, backup types, tools to perform and restore backups such as tar. Scheduling backups and other services using CRON and At.

Core Administration Services

Integration of various client/server services such as DNS, SSH, FTP and NTP.

Web and File Services

Setup and configuration of modern file and web server services.

Assessment Breakdown

%

Project

60.00%

Practical

40.00%

No Continuous Assessment

Project

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Project	Systems integration project	1,2,3	60.00	Week 12

Practical

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Practical/Skills Evaluation	Skills based assessment	1	40.00	Week 5

No End of Module Formal Examination

SETU Carlow Campus reserves the right to alter the nature and timings of assessment

Module Workload

Workload: Full Time		
<i>Workload Type</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Lecture	12 Weeks per Stage	1.00
Laboratory	12 Weeks per Stage	3.00
Estimated Learner Hours	15 Weeks per Stage	5.13
Total Hours		125.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_KWCCD_B	Bachelor of Science (Honours) in Creative Computing and Digital Innovation	3	Mandatory
CW_KCCYB_B	Bachelor of Science (Honours) in Cyber Crime and IT Security	3	Mandatory
CW_KCCIT_B	Bachelor of Science (Honours) in Information Technology Management	3	Mandatory
CW_KCCYB_D	Bachelor of Science in Cybercrime and IT Security	3	Mandatory
CW_KCCSY_D	Bachelor of Science in Information Technology Management	3	Mandatory