

Module Title:	Systems Administration
Language of Instruction:	English
Credits:	10
NFQ Level:	7
Module Delivered In	No Programmes
Teaching & Learning Strategies:	As well as traditional lectures students will undertake various laboratory exercises on administrative topics.
Module Aim:	To provide the student 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 practical and theoretical knowledge of the linux command line.
LO2	Write scripts for automating tasks.
LO3	Discuss the issues involved in disk management.
LO4	Describe techniques for system security and monitoring.
LO5	Demonstrate practical and theoretical knowledge in managing/administering various computer systems.
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>	
2nd year Network Systems Administration or equivalent	

Module Content & Assessment

Indicative Content
Evards Lifecycle of a machine Overview of Evards lifecycle of a machine
Introduction to Linux Linux history; distributions; licensing
Installing Linux Linux Installation
Command Line Introduction Man Pages; files; file contents; linux file tree;
Shell Expansion Commands and arguments; control operators; shell variables; shell embedding and options; shell history; file globbing
Pipes and commands I/O Redirection; filters; Basic Unix Tools; Regular Expressions
Shell Scripting Scripting Introduction; Loops; Parameters
Local User Management User Management; User Passwords; User Profiles; Groups
File Security Standard File Permissions; Advanced File Permissions; Access Control Lists; File Links
Disk Management Disk Devices; Disk Partitions; File Systems; Mounting; Troubleshooting Tools; UUID's; Introduction to RAID; Logical Volume Managment
Backup Management Backup
Basic Linux Security Implementing Basic Security; Monitoring Security; Auditing and Reviewing Security; Checking File Integrity
Other Administration Other Administrative Techniques

Assessment Breakdown	%
Continuous Assessment	60.00%
End of Module Formal Examination	40.00%

Continuous Assessment				
Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Examination	Class Exams	1,2,3,4,5	50.00	n/a
Other	Laboratory Participation	2,5	10.00	n/a

No Project

No Practical

End of Module Formal Examination				
Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Formal Exam	No Description	2,3,4,5	40.00	End-of-Semester

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	20 Weeks per Stage	3.00
Laboratory	20 Weeks per Stage	2.00
Estimated Learner Hours	20 Weeks per Stage	5.00
Total Hours		200.00

