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| Module Title: | Networking |
| Language of Instruction: | English |
| Credits: | 10 |
| NFQ Level: | 6 |
| Module Delivered In | 1 programme(s) |
| Teaching & Learning Strategies: | Combination of lectures and practical laboratory sessions. Lectures will take the form of traditional theory and tutorials. Laboratory sessions take the form of individual & group work. |
| Module Aim: | To provide the student with: 1. the skills necessary to build simple computer networks. 2. the basic concepts of networking. 3. the capability to understand basic network device configuration |
| Learning Outcomes | |
| <i>On successful completion of this module the learner should be able to:</i> | |
| LO1 | Describe and compare network models |
| LO2 | Examine IOS (Internet Operating System) basic features |
| LO3 | Identify network media and construct network cables |
| LO4 | Identify and explain IP addresses |
| LO5 | Explore and construct LANs and WANs |
| LO6 | Test and troubleshoot computer networks |
| 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> | |
| No requirements listed | |

Module Content & Assessment

| Indicative Content |
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| Networking Basics Network devices, types of networks, Internet (15%) |
| Network Models and Protocols Network standards and rules, OSI & TCP/IP models (20%) |
| Network OS Router and Switch IOS architecture & commands (30%) |
| OSI Lower Layers Physical, Data Link, Network (35%) |

| Assessment Breakdown | % |
|-----------------------|---------|
| Continuous Assessment | 100.00% |

| Continuous Assessment | | | | |
|-----------------------------|---|-------------------|------------|-----------------|
| Assessment Type | Assessment Description | Outcome addressed | % of total | Assessment Date |
| Practical/Skills Evaluation | Two practical examinations to demonstrate the achievement of the learning outcomes | 1,2,3,4,5,6 | 40.00 | n/a |
| Practical/Skills Evaluation | Weekly practical/laboratory work is designed to allow students to demonstrate the achievement of the learning outcomes | 1,2,3,4,5,6 | 20.00 | n/a |
| Examination | Written Test Block 1: The students will be given a written test to assess their knowledge of network devices and protocols | 1,2,5 | 20.00 | n/a |
| Examination | Written Test 2: The students will be given a written test to assess their knowledge of network media & network operating system | 3,4,6 | 20.00 | n/a |

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| No Project |
| No Practical |
| 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 | 30 Weeks per Stage | 1.00 |
| Laboratory | 30 Weeks per Stage | 3.00 |
| Estimated Learner Hours | 30 Weeks per Stage | 2.67 |
| Total Hours | | 200.00 |

Module Delivered In

| Programme Code | Programme | Semester | Delivery |
|----------------|---|----------|-----------|
| CW_KWCAP_C | Higher Certificate in Computing | 1 | Mandatory |