

## Module Specification

### Module Summary Information

1	<b>Module Title</b>	Enterprise Network Systems
2	<b>Module Credits</b>	20
3	<b>Module Level</b>	5
4	<b>Module Code</b>	CMP5337

5	<b>Module Overview</b>
<p><b>Relationship with Programme Philosophy and Aims</b></p> <p>This module allows you to examine network technology, applications and protocols to enable you to gain a thorough understanding of the developments in this area. Routing and switching will be investigated theoretically and practically using a variety of different network operating systems and devices. The module content builds on the networking technologies introduced previously, and focuses on developing design and implementation skills relevant to achieving industry certification applicable to small and medium enterprise networks.</p> <p><b>Learning and Teaching Methods</b></p> <p>The learning and teaching methods are designed to encourage and support independent learning. Students are provided with a guided pathway through the learning resources, which are provided on the Virtual Learning Environment 'Moodle'. These resources include (but are not limited to):</p> <ul style="list-style-type: none"> <li>• Online curriculum</li> <li>• Video presentations</li> <li>• PowerPoint presentations</li> <li>• External professional published articles, journals, text books, RFCs.</li> <li>• Quizzes, with feedback</li> <li>• Simulator based practical exercises</li> <li>• Laboratory based networking devices</li> <li>• Remotely accessed network devices</li> </ul> <p>Wherever possible real life studies will be used to illustrate the learning.</p> <p>Face-to face delivery will predominately be in the form of practical workshops allowing the students to apply and explore the knowledge they have gained from prior reading. Students will receive a series of sessions over a period of weeks allowing them time to work towards the assessment requirements.</p>	

<b>6</b>	<b>Indicative Content</b>
Students will investigate the following networking technologies: <ul style="list-style-type: none"> <li>• Network design including IP address design</li> <li>• Network protocols both routing and switching for implementation within given network scenario's</li> <li>• Network management and fault finding</li> </ul>	

<b>7</b>	<b>Module Learning Outcomes</b>
<b>On successful completion of the module, students will be able to:</b>	
	<b>1</b> Explain the theoretical aspects of redundant campus network design, and implement suitable protocols and technology to support small and medium enterprise networks.
	<b>2</b> Evaluate proprietary and standards-based routing protocols for performance and suitability in small and medium enterprise networks.
	<b>3</b> Evaluate evolving scalable campus network technologies.
	<b>4</b> Implement appropriate technology to monitor, maintain and support the operation of a scalable campus network.

8	Module Assessment		
Learning Outcome			
	Coursework	Exam	In-Person
1, 2	X		
3. 4		X	

<b>9</b>	<b>Breakdown Learning and Teaching Activities</b>
<b>Learning Activities</b>	<b>Hours</b>
<b>Scheduled Learning (SL)</b> includes lectures, practical classes and workshops, peer group learning, Graduate+, as specified in timetable	48
<b>Directed Learning (DL)</b> includes placements, work-based learning, external visits, on-line activity, Graduate+, peer learning, as directed on VLE	90
<b>Private Study (PS)</b> includes preparation for exams	62
<b>Total Study Hours:</b>	200