

## Module Specification

### Module Summary Information

<b>1</b>	<b>Module Title</b>	Cloud Computing
<b>2</b>	<b>Module Credits</b>	20
<b>3</b>	<b>Module Level</b>	6
<b>4</b>	<b>Module Code</b>	CMP6210

<b>5</b>	<b>Module Overview</b>
<p>One of the major objective of the computer science program is to introduce the theory, principles and technologies underlying the construction of modern computing systems. This module introduces, Cloud Computing which is the technology that enables on-demand computing resources (everything from applications to data centres) over the internet. This technology has revolutionized modern computing by allowing users to access infinite pool of computing services and resources on a pay-per-use basis. This module introduces the fundamental concepts and technologies related to cloud computing architecture, platforms and services. The module follows a practical approach to equip the students with hands-on experience of cloud computing by using a public Cloud service such as Amazon Web Services.</p> <p>This module will also aim at preparing students to obtain a professional certification such as AWS Certified Cloud Architect. In some cases where a partnership with a public cloud provider (such as Amazon), students will receive a voucher to access online content and take a certification exam at significant discount.</p>	

<b>6</b>	<b>Indicative Content</b>
<p>On the Cloud: Computing, networking, storage, databases          Automation, Load Balancing, Scaling          Security, Monitoring</p>	

<b>7</b>	<b>Module Learning Outcomes</b>
<b>On successful completion of the module, students will be able to:</b>	
<b>1</b>	Identify current technologies, features and trends of Cloud Computing.
<b>2</b>	Analyse application development in cloud computing with respect to the end-to-end software design lifecycle and the impact of commercial and organisational elements (such as cost and availability).
<b>3</b>	Apply problem solving skills to design and deploy a professionally representative application using a leading cloud platform (such as AWS or Azure) using a range of offered services.
<b>4</b>	Demonstrate the ability to document and present and compare with alternatives, a team-produced cloud based software solution.

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

9 Breakdown Learning and Teaching Activities	
Learning Activities	Hours
<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	72
<b>Private Study (PS)</b> includes preparation for exams	80
<b>Total Study Hours:</b>	200