Module Specification

Module Summary Information

1	**Module Title**	Application Development
2	**Module Credits**	20
3	**Module Level**	4
4	**Module Code**	CMP4284

5	**Module Overview**

The information needs of an organisation and the ability to provide information by designing innovative applications is essential to drive innovation and growth in the modern global organisation. This module is intended to introduce you to current development tools and techniques, providing the skills required to develop applications that meet the rapidly changing needs of organisations.

The module will explore key internet technologies, protocols and programming languages required to create working applications that meet the requirements of the user. You will engage in lab sessions to apply programming principles in order to solve problems. You will also develop interactive applications involving both server side and client-side data processing.

Through a programming challenge, a workable software solution will be developed to capture and process information. This module alongside "Application Design" completes the family of the "Systems" modules in the first year of study. This module also provides grounding for you to develop your skills further in the Level 5 modules "Application Systems" and Information Technology Innovation". You will be encouraged to innovate and be creative in your system - graduate attributes that will help you in your future career.

Learning and Teaching

The module will be taught using a combined interactive tutorial session. A case study approach to learning and teaching will be utilised throughout the module and assessment, using live case studies involving global organisations where possible, supported by current research and industry best practice. During the module students will work individually and in groups to derive information requirements and explore different ways to apply application design good practices to a range of scenarios.

Flipped learning methods will be used throughout the module whereby you are expected to study the theoretical aspects in your own time and the practical learning takes place in class within an interactive dynamic environment.

Independent learning will be supported by a range of materials and activities delivered using Moodle. This will be supported by:

- Flipped learning methods will be used on the module by providing theory on Moodle (VLE) before each interactive tutorial.
- Details of each tutorial and case-based resource (such as videos, quiz, online tutorials and example case studies).

- Recommended reading to broaden understanding of the theory and practice introduced in the module.
- Additional materials for students who wish to gain related certifications

This module covers part of the objective domains for the MTA (Microsoft Technology Associate) exams 98-361 (Software Development Fundamentals) and 98-379 (Software Testing Fundamentals). Students will be encouraged to undertake additional study in order to successfully gain these professional certifications which will enhance their employability.

Relationship to programme philosophy:

This module contributes towards the programme philosophy by providing an opportunity to design innovative applications to capture and process information, enabling businesses to exploit information and technology in order to drive innovation and growth in the modern global organization.

The module will also provide the students with interactive tutorials, an opportunity to learn practice-based skills to analyse, design and develop information systems needed to harness the capabilities of digital information.

This module also builds project management skills, essential graduate attributes for students working with information systems. These skills are developed through the lab tasks and assessments, such as developing detailed specifications and working to strict deadlines.

6	Indicative Content
• ASP.NET Controls • Web Forms • Navigation • Master Pages • User Controls • Validation • Accessing external data • C# fundamentals • Building data driven applications	

7	Module Learning Outcomes On successful completion of the module, students will be able to:	
	1	Develop a computer-based application incorporating database technologies
	2	Implement an application using appropriate programming languages
	3	Test and evaluate an application using appropriate globally recognised quality assurance standards and procedures

8	Module Assessment		
Learning Outcome			
	Coursework	**Exam**	**In-Person**
1,2,3	x		

9	Breakdown Learning and Teaching Activities
Learning Activities	**Hours**
Scheduled Learning (SL) includes lectures, practical classes and workshops, peer group learning, Graduate+, as specified in timetable	48
Directed Learning (DL) includes placements, work-based learning, external visits, on-line activity, Graduate+, peer learning, as directed on VLE	40
Private Study (PS) includes preparation for exams	112
Total Study Hours:	200