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## MODULE DESCRIPTOR

### Module Title

Enterprise Web Systems

Reference	CM4025	Version	7
Created	June 2022	SCQF Level	SCQF 10
Approved	September 2012	SCQF Points	15
Amended	July 2022	ECTS Points	7.5

### Aims of Module

To provide the student with an understanding of the main principles involved in the development of web-based enterprise systems and with an appreciation of the key issues involved. To develop the student's skill in the practical development of web systems with a focus on modelling and interacting with data.

### Learning Outcomes for Module

On completion of this module, students are expected to be able to:

- 1 Appraise the advantages and disadvantages of available web architectures and describe the key considerations for developing enterprise applications.
- 2 Demonstrate an understanding of key security issues on the web and how they affect enterprise systems.
- 3 Appraise alternative approaches to modelling and interacting with data, and demonstrate their use in web systems.
- 4 Develop client-server systems and present these as client applications or web services.

### Indicative Module Content

Multi-tier client/server architectures, application performance and scalability, data integrity and security, legacy systems.

### Module Delivery

The course is lecture and laboratory based. The lectures introduce key concepts to give students an awareness of the relevant issues in the development of enterprise-scale web systems. The laboratories will allow the student to progress through a sequence of exercises to develop practical skills in enterprise web development. The understanding of the student is further enhanced through directed reading.

**Indicative Student Workload**

	Full Time	Part Time
Contact Hours	30	N/A
Non-Contact Hours	120	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	N/A
<i>Actual Placement hours for professional, statutory or regulatory body</i>		

**ASSESSMENT PLAN**

If a major/minor model is used and box is ticked, % weightings below are indicative only.

**Component 1**

Type:	Examination	Weighting:	50%	Outcomes Assessed:	1, 2, 3
Description:	A closed book examination.				

**Component 2**

Type:	Coursework	Weighting:	50%	Outcomes Assessed:	4
Description:	A practical coursework involving the implementation of a complete web system (front and back-end).				

**MODULE PERFORMANCE DESCRIPTOR****Explanatory Text**

The calculation of the overall grade for this module is based on equal weighting of C1 and C2. An overall minimum grade D is required to pass the module.

		Coursework:						NS
		A	B	C	D	E	F	
Examination:	A	A	A	B	B	C	E	
	B	A	B	B	C	C	E	
	C	B	B	C	C	D	E	
	D	B	C	C	D	D	E	
	E	C	C	D	D	E	E	
	F	E	E	E	E	E	F	
NS		Non-submission of work by published deadline or non-attendance for examination						

**Module Requirements**

Prerequisites for Module	CM1015 Software Design and Development CM2003 Dynamic Web Programming
Corequisites for module	None.
Precluded Modules	None.

**INDICATIVE BIBLIOGRAPHY**

- |   |   |
|---|---|
| 1 | NIXON, R., 2018. Learning PHP, MySQL & JavaScript: with jQuery, CSS & HTML5. O'Reilly (WILEY UK); 5th ed. edition ISBN : 978-1491978917 |
| 2 | bin Uzayr, S., Cloud, N. and Ambler, T., 2019. JavaScript Frameworks for Modern Web Development. Apress.                                |
| 3 | Zammetti, F., 2020. Modern Full-Stack Development: Using TypeScript, React, Node. js, Webpack, and Docker. Apress.                      |
| 4 | TAYLOR, A, ALEXANDER, D., FINCH, A., & SUTTON, D., 2020. Information Security Management Principles. 3rd Ed. BCS ISBN: 978-1780175188   |