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MODULE DESCRIPTOR

Module Title

Information Retrieval Systems

Reference	CMM539	Version	2
Created	April 2017	SCQF Level	SCQF 11
Approved	July 2016	SCQF Points	15
Amended	August 2017	ECTS Points	7.5

Aims of Module

To introduce the student to fundamental roles and practical impacts of advanced information search systems, and adaptive or intelligent technology on web based products, systems, services and activities. To undertake and investigation of a topic, assess current information offerings, and develop an understanding of the methods and tools for a relevant technical application. To explore innovative smart information applications, products, solutions, or services that meet end-user or business needs that create entrepreneurial opportunities.

Learning Outcomes for Module

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

1	Explain the main concepts of current and intelligent technologies for information search and retrieval applications
2	Analyse and evaluate the effectiveness of information systems
3	Select appropriate information system technologies.
4	Design and/or implement intelligent web based information systems.
5	Communicate effectively findings, challenges, and solutions to problems in information systems explaining the methods and technical details.

Indicative Module Content

Information collection: crawling and document/content pre processing. Information retrieval: indexing, search, and retrieval. Content: Web content, heterogeneous data, image/video/audio and multimedia content. Web and information environments: mobile information, context aware retrieval, ambient computing, cross/multilingual systems, and social media. Intelligent / adaptive systems: personalisation, recommendation, user modelling, and interactive smart information systems.

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Module Delivery

The module is taught using a structured programme of lectures, tutorials, practical exercises and student-centred learning. Lectures are used to deliver the main principles and techniques in an interactive manner with active question-answer, tutorial and group break-out sessions as appropriate. Computing laboratories will be used to: examine case studies which reinforce the material covered in the lectures; to encourage the exploration of systems and solutions; to design and implement prototype intelligent web-based information systems. The understanding of the student is further enhanced through directed reading.

Indicative Student Workload	Full Time	Part Time
Contact Hours	33	33
Non-Contact Hours	117	117
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	150
Actual Placement hours for professional, statutory or regulatory body		

ASSESSMENT PLAN

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

Component 1

Type:	Coursework	Weighting:	50%	Outcomes Assessed:	2, 5
Description:	Coursework				

Component 2

Type:	Practical Exam	Weighting:	50%	Outcomes Assessed:	1, 3, 4
Description:	Practical exam				

MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

The calculation of the overall grade for this module is based on equal weighting of C1 and C2 components.

		Coursework:						
		A	**B**	**C**	**D**	**E**	**F**	**NS**
Practical Exam:	**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						

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Module Requirements

Prerequisites for Module	None in addition to course entry requirements.
Corequisites for module	None.
Precluded Modules	None.

INDICATIVE BIBLIOGRAPHY

1	CERI, S., BOZZON, A., BRAMBILLA, M., DELLA VALLE, E., FRATERNALI, P., and QUARTERONI, S. 2013. Web Information Retrieval. Springer Science & Business Media.
2	RUSSELL-ROSE, T., and TATE, T. 2013. Designing the search experience: The information architecture of discovery. Newnes.
3	GOKER, A. and DAVIES J., 2009. Searching in the 21st Century. Wiley.
4	RUSSELL, S. and NORVIG, R., 2010. Artificial Intelligence: A Modern Approach, 3rd Ed., Prentice Hall.
5	ULUSOY, O., TANSEL, A.U., and ARKUN, E. 2015. Recommendation and Search in Social Networks. Cham: Springer International Publishing.