

University of the West of Scotland

Module Descriptor

Session: 2024/25

Title of Module: Information Systems Analysis and Design			
Code: COMP11113	SCQF Level: 11 (Scottish Credit and Qualifications Framework)	Credit Points: 20	ECTS: 10 (European Credit Transfer Scheme)
School:	School of Computing, Engineering & Physical Sciences		
Module Co-ordinator:	Ying Liang		
Summary of Module			
<p>This module aims to increase a student's awareness of the process associated with the analysis and design of technology-based organisational information systems. This module is focused on the requirements analysis of an IT-based business system in context of the overall business organisation and strategy.</p> <p>The Unified Modelling Language (UML) is the object-oriented development method used for the analysis phase of the system development. During the analysis, the system is described from three viewpoints each of which is supported by specific techniques: the functional view (supported by the Use Case Diagram and Use Case Descriptions), the data view (supported by the Class Diagram), and the event view (supported by the Sequence Diagrams). Emphasis is placed on the practical application of these techniques via a number of case studies used throughout the module. An appropriate Computer Aided Software Engineering (CASE) tool is used to produce the UML diagrams.</p> <p>Undertaking this module will develop a range of graduate attributes such as analytical thinking and collaborative work. Furthermore, students will be knowledgeable in IT system analysis techniques using UML and will get practice in ethically minded IT system design with UML.</p>			

Module Delivery Method					
Face-To-Face	Blended	Fully Online	HybridC	Hybrid0	Work-Based Learning
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
See Guidance Note for details.					

Campus(es) for Module Delivery

The module will normally be offered on the following campuses / or by Distance/Online Learning: (Provided viable student numbers permit) (tick as appropriate)						
Paisley:	Ayr:	Dumfries:	Lanarkshire:	London:	Distance/Online Learning:	Other:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Add name

Term(s) for Module Delivery					
(Provided viable student numbers permit).					
Term 1	<input checked="" type="checkbox"/>	Term 2	<input checked="" type="checkbox"/>	Term 3	<input checked="" type="checkbox"/>

Learning Outcomes: (maximum of 5 statements) These should take cognisance of the SCQF level descriptors and be at the appropriate level for the module. At the end of this module the student will be able to:	
L1	Apply modern analysis approaches, specifically UML
L2	Produce an analysis report using standard business software and CASE tools
L3	Demonstrate a critical awareness of current issues in a specialist area of professional, legal, and ethical issues in information systems analysis and design
L4	Work as a member of a development team
Employability Skills and Personal Development Planning (PDP) Skills	
SCQF Headings	During completion of this module, there will be an opportunity to achieve core skills in:
Knowledge and Understanding (K and U)	SCQF Level 11 Understanding the role of analysis within software development
Practice: Applied Knowledge and Understanding	SCQF Level 11 Using a number of object-oriented techniques to provide a specification of the system
Generic Cognitive skills	SCQF Level 11 Assessing the strengths and weaknesses of the techniques used
Communication, ICT and Numeracy Skills	SCQF Level 11 Using an appropriate CASE tool to maintain deliverables

Autonomy, Accountability and Working with others	SCQF Level 11 Working within a group to a set deadline	
Pre-requisites:	Before undertaking this module the student should have undertaken the following:	
	Module Code:	Module Title:
	Other:	
Co-requisites	Module Code:	Module Title:

*Indicates that module descriptor is not published.

Learning and Teaching	
In line with current learning and teaching principles, a 20-credit module includes 200 learning hours, normally including a minimum of 36 contact hours and maximum of 48 contact hours.	
Learning Activities During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:	Student Learning Hours (Normally totalling 200 hours): (Note: Learning hours include both contact hours and hours spent on other learning activities)
Lecture/Core Content Delivery	12
Tutorial/Synchronous Support Activity	24
Laboratory/Practical Demonstration/Workshop	12
Independent Study	152
	200 Hours Total

**Indicative Resources: (eg. Core text, journals, internet access)
<p>The following materials form essential underpinning for the module content and ultimately for the learning outcomes:</p> <p>Alan Dennis, Barbara Wixom, and David Tegarden, <i>Systems Analysis and Design: An Object-Oriented Approach with UML</i> (6th edition), Wiley, 2021.</p> <p>John W. Satzinger, Robert B. Jackson and Stephen D. Burd, <i>Object-Oriented Analysis and Design with the Unified Process</i>, Thomson, 2005.</p> <p>Information System Analysis and Design Course Notes from the university's VLE.</p>
(**N.B. Although reading lists should include current publications, students are advised (particularly for material marked with an asterisk*) to wait until the start of session for confirmation of the most up-to-date material)
Attendance and Engagement Requirements
In line with the Student Attendance and Engagement Procedure : Students are academically engaged if they are regularly attending and participating in timetabled on-campus and online teaching sessions, asynchronous online learning activities, course-related learning resources, and complete assessments and submit these on time.
Equality and Diversity
The University's Equality, Diversity and Human Rights Procedure can be accessed at the following link: UWS Equality, Diversity and Human Rights Code .
(N.B. Every effort will be made by the University to accommodate any equality and diversity issues brought to the attention of the School)

Supplemental Information

Divisional Programme Board	Computing
Assessment Results (Pass/Fail)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
School Assessment Board	Applied and Business Computing
Moderator	Joanna Olszewska
External Examiner	C Luo
Accreditation Details	pending

Changes/Version Number	1.1
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Assessment: (also refer to Assessment Outcomes Grids below)
Assessment 1 30% - Class Test
Assessment 2 10% - Written report
Assessment 3 60% - Group based case study
(N.B. (i) Assessment Outcomes Grids for the module (one for each component) can be found below which clearly demonstrate how the learning outcomes of the module will be assessed. (ii) An indicative schedule listing approximate times within the academic calendar when assessment is likely to feature will be provided within the Student Module Handbook.)

Assessment Outcome Grids (See Guidance Note)

Component 1						
Assessment Type (Footnote B.)	Learning Outcome (1)	Learning Outcome (2)	Learning Outcome (3)	Learning Outcome (4)	Weighting (%) of Assessment Element	Timetabled Contact Hours
Class test	✓				30%	

Component 2						
Assessment Type (Footnote B.)	Learning Outcome (1)	Learning Outcome (2)	Learning Outcome (3)	Learning Outcome (4)	Weighting (%) of Assessment Element	Timetabled Contact Hours
Written report			✓		10%	

Component 3						
Assessment Type (Footnote B.)	Learning Outcome (1)	Learning Outcome (2)	Learning Outcome (3)	Learning Outcome (4)	Weighting (%) of Assessment Element	Timetabled Contact Hours
Group based case study	✓	✓		✓	60%	

Combined Total for All Components	100%	
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Footnotes

A. Referred to within Assessment Section above

B. Identified in the Learning Outcome Section above

Note(s):

1. More than one assessment method can be used to assess individual learning outcomes.
2. Schools are responsible for determining student contact hours. Please refer to University Policy on contact hours (extract contained within section 10 of the Module Descriptor guidance note).
This will normally be variable across Schools, dependent on Programmes &/or Professional requirements.