Module Descriptor

Title	Information Systems Analysis and Design		
Session	2025/26	**Status**	Published
Code	COMP11113	**SCQF Level**	11
Credit Points	20	**ECTS (European Credit Transfer Scheme)**	10
School	**Computing, Engineering and Physical Sciences**		
Module Co-ordinator	Volkan Tunali		

Summary of Module

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.

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.

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.

Module Delivery Method	**On-Campus**[1]	**Hybrid**[2]	**Online**[3]	**Work -Based Learning**[4]
	☐	☒	☐	☐

[1] Where contact hours are synchronous/ live and take place fully on campus. Campus-based learning is focused on providing an interactive learning experience supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus contact hours will be clearly articulated to students.

[2] The module includes a combination of synchronous/ live on-campus and online learning events. These will be supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus and online contact hours will be clearly articulated to students.

[3] Where all learning is solely delivered by web-based or internet-based technologies and the participants can engage in all learning activities through these means. All required contact hours will be clearly articulated to students.

[4] Learning activities where the main location for the learning experience is in the workplace. All required contact hours, whether online or on campus, will be clearly articulated to students

Campuses for Module Delivery	☐ Ayr ☐ Dumfries		☐ Lanarkshire ☒ London ☒ Paisley		☐ Online / Distance Learning ☐ Other (specify)	
Terms for Module Delivery	Term 1	☒	Term 2	☒	Term 3	☒
Long-thin Delivery over more than one Term	Term 1 – Term 2	☐	Term 2 – Term 3	☐	Term 3 – Term 1	☐

Learning Outcomes	
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
L5	N/A

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 11** Understanding the role of analysis within software development
Practice: Applied Knowledge and Understanding	**SCQF 11** Using a number of object-oriented techniques to provide a specification of the system
Generic Cognitive skills	**SCQF 11** Assessing the strengths and weaknesses of the techniques used
Communication, ICT and Numeracy Skills	**SCQF 11** Using an appropriate CASE tool to maintain deliverables
Autonomy, Accountability and Working with Others	**SCQF 11** Working within a group to a set deadline

Prerequisites	**Module Code**	**Module Title**
	Other	
Co-requisites	**Module Code**	**Module Title**

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 (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
Please select	
Please select	
TOTAL	200

Indicative Resources

The following materials form essential underpinning for the module content and ultimately for the learning outcomes:

Alan Dennis, Barbara Wixom, and David Tegarden, Systems Analysis and Design: An Object-Oriented Approach with UML (6th edition), Wiley, 2021.

John W. Satzinger, Robert B. Jackson and Stephen D. Burd, Object-Oriented Analysis and Design with the Unified Process, Thomson, 2005.

Information System Analysis and Design Course Notes from the university's VLE.

(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.

For the purposes of this module, academic engagement equates to the following:

The School of Computing, Engineering and Physical Sciences considers attendance and engagement to mean a commitment to attending, and engaging in, timetabled sessions. You will scan your attendance via the scanners each time you are on-campus and you will login to the VLE several times per week. Where you are unable to attend a timetabled learning session due to illness or other circumstance, you should notify the Programme Leader that you cannot attend. Across the School an 80% attendance threshold is set. If you fall below this, you will be referred to the Student Success Team to see how we can best support your studies.

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. Aligned with the University's commitment to equality and diversity, this module supports equality of opportunity for students from all backgrounds and learning needs. Using the VLE, material will be presented electronically in formats that allow flexible access and manipulation of content. This module complies with University regulations and guidance on inclusive learning and teaching practice. This module has lab-based teaching and as such you are advised to speak to the Module Co-ordinator to ensure that specialist assistive equipment, support provision and adjustment to assessment practice can be put in place, in accordance with the University's policies and regulations.
(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**
Overall Assessment Results	☐ **Pass / Fail** ☒ **Graded**
Module Eligible for Compensation	☐ **Yes** ☒ **No** **If this module is eligible for compensation, there may be cases where compensation is not permitted due to programme accreditation requirements. Please check the associated programme specification for details.**
School Assessment Board	Business & Applied Computing
Moderator	Joanna Olszewska
External Examiner	R Menzies
Accreditation Details	
Module Appears in CPD catalogue	☐ **Yes** ☒ **No**
Changes / Version Number	1.11

Assessment (also refer to Assessment Outcomes Grids below)
Assessment 1
Assessment 1 30% - Class Test
Assessment 2
Assessment 2 10% - Written report
Assessment 3
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.)

Component 1

Assessment Type	LO1	LO2	LO3	LO4	LO5	Weighting of Assessment Element (%)	Timetabled Contact Hours
Class test	☒	☐	☐	☐	☐	30	

Component 2							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Written report	☐	☐	☒	☐	☐	10	

Component 3							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Group based case study	☒	☒	☐	☒	☐	60	
Combined total for all components						100%	hours

Change Control

What	When	Who
Attendance and Engagement Procedure and Equality and Diversity	21/1/2025	F.Valentine