

Module specification

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Module Code	COM752
Module Title	Dissertation Project
Level	7
Credit value	60
Faculty	FAST
HECoS Code	100358
Cost Code	GACP

Programmes in which module to be offered

Programme title	Is the module core or option for this programme
MSc Computer Science	Core
MSc Computer Science (with Advanced Practice)	Core
MSc Software Engineering	Core
MSc Software Engineering (with Advanced Practice)	Core
MSc Cyber Security	Core
MSc Cyber Security (with Advanced Practice)	Core
MSc Big Data and Data Analytics	Core
MSc Big Data and Data Analytics (with Advanced Practice)	Core
MSc Computer Game Development	Core
MSc Computer Game Development (with Advanced Practice)	Core
MA Game Art	Core
MA Game Art (with Advanced Practice)	Core

Pre-requisites

COM742 Research Methods for Digital Technologies

Breakdown of module hours

Learning and teaching hours	12 hrs
Placement tutor support	0 hrs
Supervised learning e.g. practical classes, workshops	0 hrs
Project supervision (level 6 projects and dissertation modules only)	6 hrs
Total active learning and teaching hours	18 hrs
Placement / work based learning	0 hrs
Guided independent study	582 hrs
Module duration (total hours)	600 hrs

For office use only	
Initial approval date	10/05/2023
With effect from date	September 2023
Date and details of	
revision	
Version number	1

Module aims

This module will support and aid students in carrying out an independent research project based within their area of study. The aims of the Dissertation Project are:

- Allow the student to demonstrate a mastery of a specific area of the subject.
- Undertake a concentrated review of literature in a chosen subject area.
- Apply knowledge and expertise gained during the taught element of the programme.
- Facilitate the exhibition of deep research and technical skills.

Module Learning Outcomes - at the end of this module, students will be able to:

1	Critically evaluate the use of research methodologies in the wider context of computing.
2	Compose an independent plan of study that demonstrates research and professionalism in the application of digital technology.
3	Synthesise and disseminate a range of complex information from a variety of sources to reinforce subject specialist practice.

4	Devise and create a data generating artefact as part of a structured research project.
5	Assemble a comprehensive written dissertation that concludes on primary research and relates it to contemporary professional, legal, ethical and social issues.

Assessment

Indicative Assessment Tasks:

The assessment is split into two major areas.

Firstly, students must complete a formal proposal submission. This will be structured in a formal manner and require students to complete elements such as a literature review, formal research project plan, select an appropriate methodology and provide rationale along with an analysis of related legal ethical issues. Students will be given the opportunity to submit an initial interim proposal for feedback and topic validation.

Once the proposal is completed, students will progress to the main dissertation project phase. This will require the development of a formal research artefact and it is expected that students will generate their own research data for analysis as part of the project. Emphasis will be placed on methodological rigour of the work provided along with the quality of the results reported and/or product developed compared with the original aims, objectives and hypothesis testing stated in proposal.

Indicative word count for research project proposal is 3,000 words

Indicative word count for dissertation is 15-20,000 words.

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)
1	1,2,3	Dissertation Proposal	10%
2	1,2,4,5	Dissertation/Project	90%

Derogations

None

Learning and Teaching Strategies

The module will be delivered in two distinct phases. Initially, the module will start with a heavier reliance on didactic elements to ensure that the students are taught the structure and procedural elements that form a dissertation and guided in the formation of their proposal. As the proposal phase progresses, this will shift to more tutorial-based sessions with informal support.

The main dissertation phase of the project will be student led and will consist of regular meetings with their dissertation project supervisor. Additional formal support sessions may

be offered at periodic intervals to ensure progression and provide a platform from group discussion and problem solving.

In line with the Active Learning Framework, this module will be blended digitally with both a VLE and online community. Content will be available for students to access synchronously and asynchronously and may indicatively include first and third-party tutorials and videos, supporting files, online activities any additional content that supports their learning.

Indicative Syllabus Outline

The focus of the syllabus is on developing knowledge of research process and dissertation structure:

Dissertation proposal

Hypothesis and research question formulation

Research methodology

Ethical considerations and assess your project

Dissertation thesis

Structure and assessment methods

Avoiding plagiarism

· Data analysis methods

Qualitative/Quantitative/mixed studies

Data gathering techniques

Data preparation

Data analysis for qualitive studies

• Project planning, tools and techniques

JIRA and cloud management tools

Data tracking and analysis

· Legal, ethical and professional analyses

Indicative Bibliography:

Please note the essential reads and other indicative reading are subject to annual review and update. Please *ensure correct referencing format is being followed as per University* <u>Harvard Referencing Guidance.</u>

Essential Reads

Oates, B. J., Griffiths, M., McLean, R. (2022), *Researching Information Systems and Computing*, Second Edition, California: Sage Publication Ltd.

Other indicative reading

Carlo Lauro, N., Amaturo, E., Grassia, M. G., Aragona, B., Marino, M. (2017), *Data Science and Social Research: Epistemology, Methods, Technology and Applications*, Berlin: Springer.

Lankoski, P., Bjork, S. (2015) *Game Research Methods: An Overview*, North Carolina: Lulu Press.

Lazar, J. (2017), *Research Methods in Human-Computer Interaction*, Second Edition, Massachusetts: Morgan Kaufmann

Paarsch, H. K. (2016), A Gentle Introduction to Effective Computing in Quantitative Research: What Every Research Assistant Should Know, Massachusetts: MIT Press.

Squire, K. (2010), *Real-Time Research: Improvisation Game Scholarship*, North Carolina: Lulu Publishing.

Employability skills - the Glyndŵr Graduate

Each module and programme is designed to cover core Glyndŵr Graduate Attributes with the aim that each Graduate will leave Glyndŵr having achieved key employability skills as part of their study. The following attributes will be covered within this module either through the content or as part of the assessment. The programme is designed to cover all attributes and each module may cover different areas.

Core Attributes

Engaged Enterprising Creative Ethical

Key Attitudes

Commitment Curiosity Resilience Confidence Adaptability

Practical Skillsets

Digital Fluency Organisation Critical Thinking Emotional Intelligence Communication