

Module specification

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Module code	COM738
Module title	Dissertation
Level	7
Credit value	60
Faculty	FAST
Module Leader	Prof. Richard Picking
HECoS Code	100366
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 Computing	Core
MSc Computer Networking	Core
MSc Cyber Security	Core
MSc Computer Game Development	Core
MSc Data Science and Big Data Analytics	Core
MA Game Art	Core

Pre-requisites

None

Breakdown of module hours

Learning and teaching hours	0 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	6 hrs
Placement / work based learning	0 hrs
Guided independent study	594 hrs
Module duration (total hours)	600 hrs

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Initial approval date	28/11/2018
With effect from date	01/09/2019
Date and details of revision	approved on 22/07/2020 for the addition of MSc Data Science and Big Data Analytics August 2021 addition of MA Game Art
Version number	2

Module aims

This module will support and aid students in carrying out an independent project allocated or chosen through consultation with programme team staff. The aims of the Dissertation 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	Demonstrate a professional and critical understanding of research methodologies in computing
2	Show originality and professionalism in the application of subject-specific knowledges
3	Critically evaluate complex information from a variety of sources
4	Understand how the bounds of subject-specific knowledge are advanced through research
5	Structure and write a major piece of academic work

Assessment

Indicative Assessment Tasks:

This section outlines the type of assessment task the student will be expected to complete as part of the module. More details will be made available in the relevant academic year module handbook.

Students will be expected to produce an academic paper or interim report summarising the findings of the dissertation at a suitable point during the process, which will be identified by the supervisor in consultation with the student. This will serve as a milestone and progress indicator. This should be submitted to the supervisor no later than eight weeks after the student has started the Dissertation.

The main body of assessed work can be either of the 2 options:

Option (i) written Dissertation. This would include provision of any software or electronic information developed as a result of the investigation, which should be included on a CD/DVD or similar digital storage medium.

Option (ii) an Academic paper of publishable standard e.g. for an appropriate conference or appropriate Journal. It should fit into the publisher's template and should be a maximum of 17 pages. Students will be advised to select this option by the supervisor as a result of the assessment of the proposal.

Indicative word count for research proposal is 2,000 words

Indicative word count for dissertation is 15-20,000 words (or 17 pages for journal paper)

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)
1	1-4	Research Proposal	10%
2	1-5	Dissertation	90%

Derogations

None

Learning and Teaching Strategies

The module is primarily student-led through independent study. This is supported by individual tutorials and supervision meetings with the main and/or second supervisor (where appropriate).

Indicative Syllabus Outline

There is no distinct syllabus for this module. The module is student-led and therefore content will vary from student to student. Students will be directed towards suitable areas of investigation by the student's supervision team.

There are broadly two categories of Dissertation: Research based and Standard dissertation.

In a Research Dissertation, the student will carry out an investigation of the agreed research problem, with guidance from the supervisor. The student must meet the supervisor regularly (usually once per week) throughout the semester and must be able to demonstrate continuous progress. By the end of the semester the student must submit a dissertation that presents the results of the investigation. The dissertation must reflect work of Masters character and quality, including a well-defined thesis and argument; evidence of a substantial literature survey; research using appropriate methods and presentation of valid results; and critical evaluation of the results, their significance, and their relationship to other relevant work. The dissertation should be in the form of an extended research paper.

In a Standard dissertation, the student will undertake substantial work, again with guidance from the supervisor. The student must meet the supervisor regularly (usually once per week) throughout the semester and must be able to demonstrate continuous progress. At these meetings the student will be expected to demonstrate progress with any software and documentation to be produced. By the end of the semester the student must submit a dissertation that represents the work undertaken for the project. This dissertation must reflect work of Masters character and quality.

Students will develop and submit a suitable proposal for approval before undertaking the Dissertation. The proposal will be submitted to a Dissertation approval panel, which will also consider any professional or ethical issues relating to the proposal.

Indicative Bibliography:

Please note the essential reads and other indicative reading are subject to annual review and update.

Essential Reads

Students' essential texts will be self-prescribed and in the area of their chosen topic of research. More general reading regarding research methods and the dissertation process is detailed below.

Other indicative reading

Bolton, G. (2018), *Reflective Practice: Writing and Professional Development*. 5th ed. Los Angeles: Sage.

Cottrell, S. (2017), *Critical Thinking Skills: Developing Effective Analysis and Argument*. 3rd ed. Basingstoke: Palgrave Macmillan.

Craswell, G. and Poore, M. (2011), *Writing for Academic Success*. 2nd ed. London: SAGE.

Hart, C. (2004), *Doing Your Masters Dissertation*. London: SAGE.

Madsen, D.L. (2005), *Researching Information Systems and Computing*, SAGE Publications Ltd.

Moon, J.A., (2006), *Learning Journals: A Handbook for Academics, Students and Professional Development*. 2nd ed. London: Routledge.

Oates, B.J. (2005), *Researching Information Systems and Computing*. London: SAGE.

Wisker, G. (2008), *The Postgraduate Research Handbook*. 2nd ed. Basingstoke: Palgrave Macmillan.

Journals:

ACM Digital Library (available electronically through the library)

Computer Networks and Computer Communications (journals available electronically via Science Direct through the Library)

IEEE Xplore Digital Library (available through the University Library)

Professional Body Websites:

The British Computer Society (BCS) <http://www.bcs.org/>

The Institution of Engineering and Technology (IET) <http://www.theiet.org/>

The Institute of Electrical and Electronics Engineers (IEEE) <http://www.ieee.org>

The Association of Computing Machinery (ACM) <http://www.acm.org>

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