H9RCOMP: Research In Computing

Module Code:	H9RCOMP
Long Title	Research In Computing APPROVED
Title	Research In Computing
Module Level:	LEVEL 9
EQF Level:	7
EHEA Level:	Second Cycle
Credits:	5
Module Coordinator:	Christos Grecos
Module Author:	Christos Grecos
Departments:	School of Computing
Specifications of the qualifications and experience required of staff	

Learning Outcomes	
On successful completion of this module the learner will be able to:	
#	**Learning Outcome Description**
LO1	Understand what constitutes a good research question. Propose a research question and identify its implications with regard to the choice of subject;Critically assess and select methods for addressing the research question, including originality considerations;Propose research objectives and identify possible deliverables
LO2	Create a literature review which situates the work with regard to state of the art and seminal work. Develop a research and development design and methodology;
LO3	Demonstrate an ability to write a comprehensive research plan that explores research methods and deliverables for a specific subject in computing.Understand the need for reproducibility as a minimum standard for assessing the validity of the results of research
LO4	Understand the ethical issues that need to be addressed when conducting research;

Dependencies
Module Recommendations
No recommendations listed
Co-requisite Modules
No Co-requisite modules listed

Entry requirements	

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Module Content & Assessment

Indicative Content
Research Questions and Literature Review Structure and purpose of a literature review. Search tools and sources. Selecting and coping with literature
Research Methodology, Research Questions and Literature Review Exploring different research methodologies and assessing the context for these research methodologies.. Formulating a research question.. Ethics in research.
Research in Computing The research community and their major platforms (journals, conferences, etc). . Making use of research articles to make informed choices in development
Research in Computing Planning software development and evaluation; User involvement; Descriptive, theory oriented and applied projects
Scientific Writing and Research Documentation Proposal structure. Selection and assessing the quality of literature.
Scientific Writing and Research Documentation Project structure. Citations and referencing.
Scientific Writing and Research Documentation Presenting qualitative data. Presenting quantitative data
Scientific Writing and Research Documentation The importance of ethics and reproducibility in research..
Scientific Writing and Research Documentation Scientific writing and style considerations.. Plagiarism and self-plagiarism
Technical Information Reading, understanding and summarising technical material, including source code, academic articles, patents, and documentation
Technical Information Writing effective technical documentation and materials.
Communication Dynamics of oral, written, and electronic team and group communication

Assessment Breakdown	%
Coursework	100.00%

Assessments

Full Time

Coursework

Assessment Type:	Formative Assessment	**% of total:**	Non-Marked
Assessment Date:	n/a	**Outcome addressed:**	1,2,3,4
Non-Marked:	Yes		

Assessment Description:
n/a

Assessment Type:	Continuous Assessment	**% of total:**	20
Assessment Date:	n/a	**Outcome addressed:**	1
Non-Marked:	No		

Assessment Description:
A written coursework assignment in which the student: • identifies an appropriate topic; • proposes a suitable research question; • list of objectives and identification of project beneficiaries; • Justifies the proposed research by citing 3-5 key sources in the domain; • explains the motivation for and expected contribution to knowledge of the proposed work; • addresses the feasibility and ethics of the proposed study;

Assessment Type:	Continuous Assessment	**% of total:**	80
Assessment Date:	n/a	**Outcome addressed:**	2,3,4
Non-Marked:	No		

Assessment Description:
A written coursework assignment in consisting of: • an abstract – providing a summary of the proposal; • a literature review, comparing and contrasting prior work, leading to a clear research question and situating the proposed research question in context; • the proposed methodology and specification, including a project plan and all software deliverables; A 10 minute video presentation of the proposed research, giving an insight into the student's research interests.

No End of Module Assessment

No Workplace Assessment

Reassessment Requirement

Repeat examination
Reassessment of this module will consist of a repeat examination. It is possible that there will also be a requirement to be reassessed in a coursework element.

Reassessment Description
The repeat strategy for this module is by repeat assessment/project that covers all learning outcomes.

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Module Workload

Module Target Workload Hours 0 Hours

Workload: Full Time

Workload Type	*Workload Description*	*Hours*	*Frequency*	*Average Weekly Learner Workload*
Lecture	Classroom & Demonstrations (hours)	12	Every Week	12.00
Tutorial	Other hours (Practical/Tutorial)	24	Every Week	24.00
Independent Learning	Independent learning (hours)	89	Every Week	89.00
			Total Weekly Contact Hours	36.00

Module Resources

Recommended Book Resources

Justin Zobel. (2015), Writing for Computer Science, Springer, p.284, [ISBN: 1447166388].

Christian W. Dawson. (2015), Projects in Computing and Information Systems, Prentice Hall, p.320, [ISBN: 1292073462].

John W. Creswell,J. David Creswell. Research Design, [ISBN: 1506386768].

Supplementary Book Resources

Gary Thomas. (2017), How to Do Your Research Project, Sage Publications Limited, p.360, [ISBN: 147394886X].

Justin Kitzes,Daniel Turek,Fatma Deniz. (2017), The Practice of Reproducible Research, Univ of California Press, p.368, [ISBN: 0520294750].

David Evans,Paul Gruba,Justin Zobel. (2014), How to Write a Better Thesis, Springer, p.167, [ISBN: 3319042858].

Diana Ridley. (2012), The Literature Review, SAGE Publications, p.214, [ISBN: 1446201430].

This module does not have any article/paper resources

This module does not have any other resources

Discussion Note:	