

## H9INTERN: Internship

|                                                                              |                                                                                                                        |
|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| <b>Module Code:</b>                                                          | H9INTERN                                                                                                               |
| <b>Long Title</b>                                                            | Internship <b>APPROVED</b>                                                                                             |
| <b>Title</b>                                                                 | Internship                                                                                                             |
| <b>Module Level:</b>                                                         | LEVEL 9                                                                                                                |
| <b>EQF Level:</b>                                                            | 7                                                                                                                      |
| <b>EHEA Level:</b>                                                           | Second Cycle                                                                                                           |
| <b>Credits:</b>                                                              | 30                                                                                                                     |
| <b>Module Coordinator:</b>                                                   | Arghir Moldovan                                                                                                        |
| <b>Module Author:</b>                                                        | Arghir Moldovan                                                                                                        |
| <b>Departments:</b>                                                          | School of Computing                                                                                                    |
| <b>Specifications of the qualifications and experience required of staff</b> | PhD/Master's degree in a computing or cognate discipline. May have industry experience also.                           |
| <b>Learning Outcomes</b>                                                     |                                                                                                                        |
| <i>On successful completion of this module the learner will be able to:</i>  |                                                                                                                        |
| <b>#</b>                                                                     | <b>Learning Outcome Description</b>                                                                                    |
| LO1                                                                          | Propose a research question, project objectives and methodology.                                                       |
| LO2                                                                          | Analyse, synthesise, and critically evaluate the state of the art.                                                     |
| LO3                                                                          | Propose, architect, implement and evaluate an ICT solution related to the programme area.                              |
| LO4                                                                          | Investigate potential future research and invention disclosures.                                                       |
| LO5                                                                          | Present and defend the research findings through a viva, artefact/product demo, and report.                            |
| LO6                                                                          | Understand the ethical issues that need to be addressed when conducting research.                                      |
| LO7                                                                          | Demonstrate initiative whilst working alone or part of a team, and appropriate communication and interpersonal skills. |
| <b>Dependencies</b>                                                          |                                                                                                                        |
| <b>Module Recommendations</b>                                                |                                                                                                                        |
| No recommendations listed                                                    |                                                                                                                        |
| <b>Co-requisite Modules</b>                                                  |                                                                                                                        |
| No Co-requisite modules listed                                               |                                                                                                                        |
| <b>Entry requirements</b>                                                    | Programme entry requirements must be satisfied.                                                                        |

# H9INTERN: Internship

| Module Content & Assessment                                                                                                                                                                                                                                                                                                                                 |                      |                           |               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------|---------------|
| Indicative Content                                                                                                                                                                                                                                                                                                                                          |                      |                           |               |
| <b>Research Questions and Literature Review and Novel Contribution</b><br>• Structure and purpose of a literature review • Search tools and sources • Selecting and coping with literature • Identifying novel contribution                                                                                                                                 |                      |                           |               |
| <b>Scientific Methodology, Research Questions and Literature Review</b><br>• Exploring different research methodologies and assessing the context for these research methodologies • Formulating a research question • Ethics in research                                                                                                                   |                      |                           |               |
| <b>Computing Community and Resources</b><br>• The research community and their major platforms (journals, conferences, etc) • Making use of scientific articles to make informed choices in development                                                                                                                                                     |                      |                           |               |
| <b>Computing Practices and Project Management</b><br>• Planning software development and evaluation • User involvement • Descriptive, theory oriented and applied projects • Time and project management, making efficient use of time and resources to manage multiple tasks at the same time and reach the goals.                                         |                      |                           |               |
| <b>Academic Writing</b><br>• Proposal structure • Selection and assessing the quality of literature                                                                                                                                                                                                                                                         |                      |                           |               |
| <b>Academic Writing</b><br>• Project structure • Citations and referencing                                                                                                                                                                                                                                                                                  |                      |                           |               |
| <b>Academic Writing</b><br>• Presenting qualitative data • Presenting quantitative data                                                                                                                                                                                                                                                                     |                      |                           |               |
| <b>Academic Writing</b><br>• The importance of ethics and reproducibility in research                                                                                                                                                                                                                                                                       |                      |                           |               |
| <b>Academic Writing</b><br>• Scientific writing and style considerations • Plagiarism and self-plagiarism                                                                                                                                                                                                                                                   |                      |                           |               |
| <b>Technical Information</b><br>• Reading, understanding and summarising technical material, including source code, academic articles, patents, and documentation • Writing effective technical documentation and materials                                                                                                                                 |                      |                           |               |
| <b>Ethics</b><br>• Ethics considerations around human participants, secondary datasets • Ethics approval process                                                                                                                                                                                                                                            |                      |                           |               |
| <b>Communication</b><br>• Dynamics of oral, written, and electronic team and group communication                                                                                                                                                                                                                                                            |                      |                           |               |
| Assessment Breakdown                                                                                                                                                                                                                                                                                                                                        |                      |                           | %             |
| Coursework                                                                                                                                                                                                                                                                                                                                                  |                      |                           | 100.00%       |
| Assessments                                                                                                                                                                                                                                                                                                                                                 |                      |                           |               |
| Full Time                                                                                                                                                                                                                                                                                                                                                   |                      |                           |               |
| Coursework                                                                                                                                                                                                                                                                                                                                                  |                      |                           |               |
| <b>Assessment Type:</b>                                                                                                                                                                                                                                                                                                                                     | Formative Assessment | <b>% of total:</b>        | Non-Marked    |
| <b>Assessment Date:</b>                                                                                                                                                                                                                                                                                                                                     | n/a                  | <b>Outcome addressed:</b> | 1,2,3,4,5,6,7 |
| <b>Non-Marked:</b>                                                                                                                                                                                                                                                                                                                                          | Yes                  |                           |               |
| <b>Assessment Description:</b><br>Formative assessment will be provided on the in-class individual or group activities. Feedback will be provided in written or oral format, or on-line through Moodle. In addition, in class discussions will be undertaken as part of the practical approach to learning.                                                 |                      |                           |               |
| <b>Assessment Type:</b>                                                                                                                                                                                                                                                                                                                                     | Project              | <b>% of total:</b>        | 100           |
| <b>Assessment Date:</b>                                                                                                                                                                                                                                                                                                                                     | n/a                  | <b>Outcome addressed:</b> | 1,2,3,4,5,6,7 |
| <b>Non-Marked:</b>                                                                                                                                                                                                                                                                                                                                          | No                   |                           |               |
| <b>Assessment Description:</b><br>Project Proposal and Ethics Approval (10%); Project Specification and Objectives (5%); Literature Review (10%); Artefact/Product Development (30%); Artefact/Product Evaluation and Analysis (25%); Document Presentation/Structure, Referencing, and Configuration Manual (10%); Weekly Activity Report (5%); Viva (5%); |                      |                           |               |
| No End of Module Assessment                                                                                                                                                                                                                                                                                                                                 |                      |                           |               |
| No Workplace Assessment                                                                                                                                                                                                                                                                                                                                     |                      |                           |               |
| Reassessment Requirement                                                                                                                                                                                                                                                                                                                                    |                      |                           |               |
| <b>Coursework Only</b><br><i>This module is reassessed solely on the basis of re-submitted coursework. There is no repeat written examination.</i>                                                                                                                                                                                                          |                      |                           |               |
| <b>Reassessment Description</b><br>The repeat strategy for this module is by a project that covers all learning outcomes.                                                                                                                                                                                                                                   |                      |                           |               |

## H9INTERN: Internship

| Module Workload                      |                                    |       |              |                                 |
|--------------------------------------|------------------------------------|-------|--------------|---------------------------------|
| Module Target Workload Hours 0 Hours |                                    |       |              |                                 |
| Workload: Full Time                  |                                    |       |              |                                 |
| Workload Type                        | Workload Description               | Hours | Frequency    | Average Weekly Learner Workload |
| Lecture                              | Classroom and demonstrations       | 12    | Per Semester | 1.00                            |
| Tutorial                             | Mentoring and small-group tutoring | 36    | Per Semester | 3.00                            |
| Independent Learning                 | Independent learning               | 366   | Per Semester | 30.50                           |
| Workbased learning                   | Work-based learning                | 336   | Per Semester | 28.00                           |
| Total Weekly Contact Hours           |                                    |       |              | 32.00                           |
| Workload: Blended                    |                                    |       |              |                                 |
| Workload Type                        | Workload Description               | Hours | Frequency    | Average Weekly Learner Workload |
| Lecture                              | Classroom and demonstrations       | 12    | Per Semester | 1.00                            |
| Tutorial                             | Mentoring and small-group tutoring | 24    | Per Semester | 2.00                            |
| Directed Learning                    | Directed e-learning                | 12    | Per Semester | 1.00                            |
| Independent Learning                 | Independent learning               | 366   | Per Semester | 30.50                           |
| Workbased learning                   | Work-based learning                | 336   | Per Semester | 28.00                           |
| Total Weekly Contact Hours           |                                    |       |              | 32.00                           |
| Workload: Part Time                  |                                    |       |              |                                 |
| Workload Type                        | Workload Description               | Hours | Frequency    | Average Weekly Learner Workload |
| Lecture                              | Classroom and demonstrations       | 12    | Per Semester | 1.00                            |
| Tutorial                             | Mentoring and small-group tutoring | 36    | Per Semester | 3.00                            |
| Independent Learning                 | Independent learning               | 366   | Per Semester | 30.50                           |
| Workbased learning                   | Work base                          | 336   | Per Semester | 28.00                           |
| Total Weekly Contact Hours           |                                    |       |              | 32.00                           |

| Module Resources                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <i>Recommended Book Resources</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |
| <p>John W. Creswell, J. David Creswell. (2022), Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 6th Ed. Sage Publications, Incorporated, [ISBN: 978-1071817940].</p> <p>Justin Zobel. (2015), Writing for Computer Science, 3rd Edition. Springer, [ISBN: 978-1447166382].</p> <p>Christian Dawson. (2015), Projects in Computing and Information Systems: A Student's Guide, 3rd Edition. Pearson, [ISBN: 978-1292073460].</p>                                                                                                                                                                                                              |  |
| <i>Supplementary Book Resources</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
| <p>Gary Thomas. (2017), How to Do Your Research Project: A Guide for Students, 3rd Edition. SAGE Publications Limited, [ISBN: 978-1473948860].</p> <p>Justin Kitzes, Daniel Turek, Fatma Deniz. (2017), The Practice of Reproducible Research: Case Studies and Lessons from the Data-Intensive Sciences, Univ of California Press, p.364, [ISBN: 978-0520294745].</p> <p>David Evans, Paul Gruba, Justin Zobel. (2014), How to Write a Better Thesis, 3rd Edition. Springer, p.167, [ISBN: 978-3319042855].</p> <p>Diana Ridley. (2012), The Literature Review: A Step-by-Step Guide for Students, 2nd Edition. SAGE Publications, p.233, [ISBN: 978-1446201435].</p> |  |
| <i>This module does not have any article/paper resources</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
| <i>Other Resources</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| <p>[Website], Intellectual Property Office of Ireland,<br/> <a href="https://www.ipoi.gov.ie/en/">https://www.ipoi.gov.ie/en/</a></p> <p>[Website], European Patent Office,<br/> <a href="http://www.epo.org/searching/free/espace_net.html">http://www.epo.org/searching/free/espace_net.html</a></p> <p>[Website], Prof Alan Bundy. How to Write an Informatics Paper, University of Edinburgh,<br/> <a href="https://sweb.inf.ed.ac.uk/bundy/how-tos/writingGuide.html">https://sweb.inf.ed.ac.uk/bundy/how-tos/writingGuide.html</a></p>                                                                                                                           |  |
| Discussion Note:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |