2024 / 25

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Ollscoil Teicneolaíochta an Oirdheiscirt

South East Technological University

Module Descriptor

Dissertation (Computing and Mathematics)

Dissertation (A14067)

Short Title: Dissertation
Department: Computing and Mathematics
Credits: 20 **Level:** Postgraduate

Description of Module / Aims

The Masters program culminates in the dissertation, an extended project that allows the student to engage in independent research, applying and developing the content of the taught modules to a topic of their choice which aligns with the research activities of the department. The Dissertation is an individual piece of work and will also be supported by the Research Methods and Dissertation module. It is further supported by research seminars hosted in the Department of Computing and Mathematics as part of the academic life of the School and which deal with particular aspects of postgraduate research in computing. The primary emphasis here bis on independent study. The dissertation is begins in Semester 1, proceeds through semester 2 (during these semesters the student is placed under the guidance of a supervisor) and is then fully engaged in what is effectively a third semester without formal supervision. This module is closely related to the "Research Methods & Dissertation Proposal" module and its outcomes represent the second phase of work towards the dissertation. The aims of this module are to: 1. Enable students to specialize in a relevant and suitable topic of their choice and according of their particular interests and related to the course they are taking. The research will align with the research programme of the Department of Computing and Mathematics. 2.Provide the opportunity for students to engage in supervised, but independently undertaken research, study and learning. 3.Allow students to obtain and demonstrate proficiency in the advanced research skills and analytical techniques that they have acquired on the course. 4.Enable students to apply their own learning self-critically in the conduct of a major research project. 5.Offer the opportunity for students to actively engage with the academic research community in the Department of Computing and Mathematics.

Programmes

		stage/semester/status
DISS-0010	MSc in Computer Science (Enterprise Software Systems) (WD_KCESS_R)	1 / 3 / M
DISS-0010	MSc in Computing (Information Systems Processes) (WD_KISYP_R)	1 / 3 / M

Indicative Content

- The curriculum content is in essence the particular subject of the dissertation - this is a three semester module and supervision arrangements are 1 hour per week/student until the start of the "third semester" and this is a total of 24 hours for this module and this figure is included in the relevant entry under "Learning Modes" below
- The Dissertation should contain clear objectives, motivation and concise, well-formed research questions relating to this subject, and demonstrate that stated objectives of the research have been achieved
- At the end of the process the student should communicate the results of their research in writing by producing an academic dissertation of their research area
- An oral presentation, and interview if necessary, will also be required
- Dissertation structure and related documents are available in the Department for "taught Masters" Dissertations

Learning Outcomes

On successful completion of this module, a student will be able to:

1. Demonstrably enhance students' expertise in a chosen area related to academic research in the Department of Computing and Mathematics and which relates to their postgraduate studies.
2. Formulate a review of the academic expert literature for a chosen subject area in so far as the review relates to well-formed research questions.
3. Appraise important conceptual, theoretical, methodological and other research-related issues involved in the course they are taking.
4. Justify appropriate methods, tools and techniques, and apply these and follow methods through to the delivery of an original and coherent piece of research.
5. Organise a piece of independent academic research in the Department of Computing and Mathematics under the supervision of a designated academic expert.

Learning and Teaching Methods

- This module involves self-directed and self-paced research effort under the guidance of an assigned supervisor.

Learning Modes

Learning Type	F/T Hours	P/T Hours
Tutorial	24	24
Independent Learning	516	516

Assessment Methods

	Weighting	Outcomes Assessed
Dissertation	100%	1,2,3,4,5

Assessment Criteria

<40%: The student has demonstrated a poor grasp of the fundamentals of the chosen research area and has either failed to complete the thesis or the thesis is so rudimentary as to provide little evidence of capacity to conduct independent research in their chosen topic.

40%–59%: The student has met the criteria for a pass, and demonstrates a grasp of the fundamentals of the chosen research area.

60%–69%: The student has shown a high level of independence in the conduct of the research and technical competence in practical work undertaken. A strong performance achieved in all components of assessment but the creativity, resourcefulness, depth of knowledge, critical and analytical ability or flexibility of thought required for a distinction is lacking. In some cases higher quality work may be marginally publishable.

70%–100%: The dissertation comprises a non-trivial piece of research which has been superbly executed and whose results and originality are worthy of dissemination in the academic community (publishable). If software has been produced, its design, implementation and deployment are exemplary and key aspects likely to be publishable as an academic paper. Student has demonstrated outstanding analytical skills and deemed very suitable for a research career.

Requested Resources

- Room Type: Computer Lab