Pre-Requisite Modules code(s)	Co-Requisite Modules code(s)	ECTS Credits	Module Code	**Module Title**
		10	CMPU3018	Individual Project

8.4.3. Stage 3 Individual Project

Module author: Damian Bourke.

Module Description:

This module is required for all students intending to exit with a BSc (Ord) in Computing. It is NOT required for students who are progressing to Stage 4. This module will only be offered to students who are exiting with a BSc (Ord).

It requires the student to propose, design, implement, test, document and present a software project to demonstrate the level of knowledge gained over the course of their studies. The project must be an independent piece of work which is both coherent and well structured. The student is expected to be self-motivated so as to drive this work through to completion. They are expected to identify the key areas of the project and to make real decisions that will ultimately affect the end deliverable. The project deliverable will be an assessable, independent body of work that will demonstrate the student's ability to work on their own and their ability to communicate key aspects of the project.

Module aim

The aim of this module for the student is to complete a software system implementation. This includes all aspects of software development including, but not limited to; Analysis, Design, Development, Implementation Integration, and Documentation. In addition the student is required to produce an academic quality report outlining the key steps undertaken, the key decisions that were made, an evaluation of the outcomes, and the student's conclusions about the success or failure of the delivered system.

Learning Outcomes:

On completion of this module the student will be able to demonstrate the ability to:

- Define a problem area and write a project proposal
- Evaluate similar systems to their proposal identifying a set of clear user requirements
- Undertake research of the problem area to determine the boundaries and scope of the project.
- Undertake research of the proposed solution to identify appropriate technologies to use
- Select and implement a formal design methodology.
- Write a project plan and project manage the project to completion.
- Develop a fully operational software/hardware system.
- Produce a report (in English) of academic quality with appropriate referencing.
- Present and defend their findings.

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Learning and Teaching Methods:

The project module involves a combination of seminars, self-paced work, research, and weekly meetings with their assigned supervisor. This is primarily a self-learning module with the supervisor providing guidance and feedback to the student throughout the project. The student is expected to state at the outset the objectives for the project and to meet these objectives throughout the year. The student is also given explicit verbal feedback at the Interim report stage which is a presentation by the student on the work completed so far and the work planned in the future.

In addition to the dedicated supervisory resources the School will also provide a second reader for the purposes of assessing the student's work.

Module content:

Students are provided with detailed guidelines on the project process. These guidelines detail the requirements of the project in terms of the project content and deliverables and they also provide guidance on the content and format of the Interim Report and Final Project Manual. The guidelines also explain the roles of the key stakeholders including the student, the supervisor, second reader and project co-ordinator.

Module Assessment

The module assessment will comprise 100% Continuous Assessment.

There are two key milestones within the project lifecycle at which the student is assessed. At the Interim Report stage the student is assessed on their research findings, system design, report writing and project management. The assessment is based on a key set of criteria set-out in the guidelines document.

At the Final Report stage the student is assessed on any additional research undertaken post-design, the system implementation phase, testing and evaluation phase, report writing, communication skills, project management, and the quality, complexity and usability of the delivered system. The assessment is based on a key set of criteria set-out in the guidelines document.

Essential Reading:

Damian Bourke, 2010. The Project Guidelines

Kathy Schwalbe, 2005, A Guide to the Project Management Body of Knowledge: Course Technology

Strunk, W. and White, E. B., 2000, *The Elements of Style* (4th ed.) Longman

Booth, W., Colomb, G.C., Williams, J.M., 2003, *The Craft of Research*, University of Chicago Press

Dawson, C., 2005, "A Practical Guide to Research Methods: A User-friendly Manual for Mastering Research Techniques and Projects", How To Books

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Supplemental Reading:

Evaluating Software Architectures Methods Studies

Web references, journals and other:

Further Details:

This module is to be delivered with dedicated supervisor contact hours equivalent to one hour per week for one semester, or half an hour per week for two semesters. Under normal circumstances this project will be undertaken over two semesters for all full-time students. In exceptional circumstances and at the discretion of the Head of School, students may apply to complete it in a single semester. Consideration will be given to their capacity to succeed in their project, based on their past performance and their workload.

Date of Academic Council approval …….