CO3014 Mathematics and Computer Science Project

Credits: 20  Convenor: Dr S. Yang  Semester: 1st or 2nd

Prerequisites: Essential: 40 credits of second year Computer Science modules
Assessment: Written reports: 100%  Examination: 0%
Surgeries: 5 hours  Private Study: 145 hours

Subject Knowledge

Aims  The aim of the Mathematics and Computer Science project is for the student to combine skills acquired in the other Mathematics and Computer Science modules in the production of a substantial project. In doing this, the student will assimilate information from a variety of sources and demonstrate the ability to pursue independent study.

It is intended that the project should produce some end product for users other than the author. A collection of course exercises, a literature search or a descriptive evaluation would not be suitable.

During the first part of the semester, the student will establish the lines of enquiry to be followed and produce a plan of the work to be carried out. The rest of the semester will be devoted to designing and implementing the end product and writing a final report detailing the progress made.

Learning Outcomes  Students will be able to establish the nature of the deliverables to be produced by the project, to plan the timescales involved in developing these, and to identify the design issues involved. They will be able to undertake appropriate specification and design, and be able to implement an end product. They will be able to test and evaluate the end product.

Methods  Individual research, meetings with supervisors.

Assessment  Plan, viva, effort and final report.

Skills

Aims  To teach students scientific writing and problem solving skills.

Learning Outcomes  Students will be able to produce a plan of timescales for project work. They will be able to demonstrate general problem solving skills, and will be able to write a substantial written report on the project.

Methods  Individual research, meetings with supervisors.

Assessment  The assessment of CO3014 is broken down as follows:

1. 5%: Project plan document.
2. 10%: Oral examination and demonstration of software.
3. 80%: Final project report.
4. 5%: Mark for student effort and participation, based on a weekly diary.

Explanation of Prerequisites  The idea of the project is that the student should develop and build on material which has already been learned, so it is important that a reasonable amount of second year study should have been undertaken.

Course Description  The aim of the Mathematics and Computer Science project is for the student to combine skills acquired in the other Mathematics and Computer Science modules in the production of a substantial
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