CO7201 Individual Project

Credits: *60* **Convenor:** *Dr. R. Craggs and Dr. N. Piterman* **Semester:** *Autumn, Spring, or Summer*

Prerequisites: *Essential: Successful completion of taught part of the course.*

Assessment: *Coursework: 100%*

Private Study: *450 hours*

Subject Knowledge

Aims The aim of this module is to demonstrate a student's ability to undertake a substantial investigation of a technical problem and its domain, by evaluating tools and methods, and by developing a professional information technology project; also, it intends to give students the opportunity to

- show individual creativity and originality;
- analyse information from a critical point of view;
- apply, where appropriate, and go beyond, where necessary, the knowledge and skills taught throughout the course;
- investigate/solve new and/or intellectually demanding problems (from specification through implementation and critical evaluation of results);
- conduct and sustain a complex argument in a coherent and lucid fashion.

Learning Outcomes The main learning outcomes of this module are to initiate, plan, manage and deliver a substantial information technology project. Upon successful completion of the project, students will be able to:

- select suitable methods and tools for analysing a substantial problem and for developing a computer-based solution for it, within known constraints;
- access, retrieve and organize information relevant to the problem under study by making use of resources such as the internet and textbooks, but also of scholarly articles published in journals and conferences;
- prepare a project plan and conduct regular reviews of the plan;
- present a properly referenced, well-structured dissertation, in a format suitable for professional dissemination;
- communicate effectively in a presentation environment;
- perform a critical reflection of the achievements in the project after its completion.

Methods After examinations, an individual project is undertaken full-time. Students choose a topic to work on and explore it by privately studying under the supervision of a member of the academic staff. The project is driven by a challenging problem to be solved.

Assessment Preliminary report, interim report, final report, software artifacts and viva. Typically, a final report usually contains 10.000 to 12000 words (40-60 pages).

Skills

Learning Outcomes Among other transferable skills, successful students will improve the following skills: solving practical and abstract problems, communication, writing, editing, searching/gathering/evaluating information, developing evaluation strategies and managing time.

Methods Development of technical deliverables, including software artifacts, specifications, written reports (preliminary report, interim report, meeting reports), dissertation, and oral presentation.

Assessment Meeting reports (diaries), preliminary report, interim report, dissertation, software artifacts and viva. Typically, a dissertation usually contains 10.000 to 12000 words (40-60 pages).

Course Description After examinations, an **individual** research project can be undertaken full-time by the students who qualify to do so. The Individual Project is carried out under the supervision of a member of the academic staff that students are invited to contact as early as possible to supervise their work. Students may wish to complement the foundational material of the first two terms with practical, applied work during the project. It is possible to involve informal collaboration with other organisations, subject to previous approval of the project supervisor.

The individual project will lead to submission of a dissertation where the original elements of the student research are described. Projects can involve a number of activities that range from substantial programming to purely theoretical research. In any case, projects must be at postgraduate level; they are expected to contain some element of original work and cannot simply be a review of literature.

Resources Relevant resources for the individual project depend on the project topic. General resources are

1. Module web page: `https://campus.cs.le.ac.uk/teaching/resources/CO7201/`
2. Calendar: `https://campus.cs.le.ac.uk/teaching/resources/CO7201/#calendar`
3. SVN Local Pages: `https://campus.cs.le.ac.uk/demonstrators/info/VCS/`
4. MSc Course handbook: `http://www.cs.le.ac.uk/admissions/masters/MScCourseHandbook.pdf`
5. Information about plagiarism: `https://campus.cs.le.ac.uk/ForStudents/plagiarism/Plagiarism.html`
6. Student Learning Centre: `http://www.le.ac.uk/offices/ssds/sd/`
7. Enhancing writing: `http://www2.le.ac.uk/offices/ssds/slc/help-with/dissertations`
8. Presentation skills: `http://www2.le.ac.uk/offices/ssds/slc/resources/presentation/index`

Module Evaluation Course questionnaires, course review.

Reading List

[B] Christian W. Dawson, *Projects in Computing and Information Systems: a Student's Guide,* Addison-Wesley. 2nd edition. 2009.