

MODULE DESCRIPTOR 2019/20

CL448 Individual Project

Registrar: Dr A Ward	Taught To (Programme): BEng/MEng Civil Engineering and BEng/MEng Civil and Environmental Engineering	
Other Lecturers Involved: Dr C Switzer, Dr D Bertram, Dr J Douglas, Dr M Perry (skills sessions); all staff (supervision)	Credit Weighting: 30 credits	Semester: 1 & 2
Assumed Pre-requisites: None	Compulsory/optional/ elective course	Academic Level: 4

Class Format and Delivery (hours):

Lecture	Tutorial	Laboratory	Coursework	Project	Private Study	Total
				300		300

Class Aim(s)

In this course, the student aims to undertake an individual research investigation, including a literature study, critical assessments and original research work, which is presented in the form of a dissertation and poster. The student pursues an intensive study in an area of interest under the supervision of a member of academic staff. The project involves research, which may include investigative, experimental, field, computational, or design work that is not of a routine nature. The project aims and plan of work must be agreed with the supervising member of staff as part of the course.

Learning Outcomes

On completion of the course the student is expected to be able to

- LO1 Develop a methodology, design and carry out a programme of original work that is set in an appropriate engineering context.
- LO2 Carry out a critical review of prior work in the topic area, and present this concisely in written form.
- LO3 Analyse and present the results of the study, and carry out critical assessments taking into consideration existing and new information.
- LO4 Communicate the work clearly and concisely in written and oral form to an educated engineering audience.

Syllabus

The course will teach the following:

Stage 1: Project Topic Selection (Year 3 / Summer): Students will select project topics from the end of Year 3 through the end of the summer recess. Topics are allocated in an anonymous manner once results from the Board of Examiners are made available. Students are expected to have a clear topic focus by the start of Semester 1.

Stage 2: Peer Review and Project Proposal (Semester 1 Weeks 1-6): Students investigate, design, and propose an original project to be conducted on an individual basis. Skills sessions will be provided to support the development process. The project proposal normally includes an introduction to the topic; aims and objectives; literature overview; and proposed methodology. Preliminary results may be included. Students carry out Peer Review (5%) on each other's and their own draft proposal prior to submission of the formal Project Proposal (10%).

Stage 3: Preliminary Work, Project Review Workshop, and Poster Presentation (Semester 1 Weeks 7-11, Semester 2, Weeks 0-8): Students refine their project plans based on feedback from their proposals and carry out their practical work. In the consolidation week (Week 0), students will present their progress in Project Review Workshops (5%) led by 2 or 3 academics; students will be assessed on presentation and questions posed to other students. Later in Semester 2, students present nearly finalised work at a public Poster Session (10%) in Week 7 or 8 and are assessed by a panel of 2 academics as well as their peers. Current Year 3 students are invited to attend as well.

Stage 4: Final Work and Dissertation Report (Semester 2, Weeks 7-11): Students carry out their original research, practical or design work and write it up in the form of a dissertation, journal paper or technical report. The report presents and analyses the new information produced. The report is expected to take a critical tone, appraising the value of the work in the context of previous work in related subjects. The dissertation report should normally be 7000 words ($\pm 10\%$) and not exceed 80 pages in length, including all appendices. The dissertation is worth 70% of the final mark.

Students are reminded of the University Regulations concerning plagiarism, and that all work of others must be acknowledged and cited properly. Students must submit all of their written work online via Turnitin. Advice on producing the dissertation, including referencing and the use of Turnitin, is given in a separate document.

Assessment Criteria

For each of the Course Learning Outcomes the following criteria will be used to make judgements on student learning:

LO1 Develop a methodology, design and carry out a programme of original work that is set in an appropriate engineering context.

C1 The project aims are clearly defined in the project plan.

C2 The research methodology is developed which is capable of meeting the project aims.

C3 The project work is performed to a high standard, as demonstrated in the dissertation report.

LO2 Carry out a critical review of prior work in the topic area, and present this concisely in written form.

C1 The review of previous work is up to date and comprehensive.

C2 The review criticises previous work and clearly highlights areas for further work.

LO3 Analyse and present the results of the study, and carry out critical assessments taking into consideration existing and new information.

C1 Results of the project work are presented fully and logically in the dissertation report.

C2 Results of the project work are assessed and criticised in the light of previous work.

LO4 Communicate the work clearly and concisely in written and oral form to an educated engineering audience.

C1 The dissertation report is written in a clear and concise form and fully reflects the scope of the work undertaken.

C2 The student is able to describe and defend the project in an oral examination.

The standards set for each criterion per Learning Outcome to achieve a pass grade are indicated on the assessment sheet for all assessments.

Principles of Assessment and Feedback (<https://www.strath.ac.uk/staff/policies/academic/>)

PRINCIPLE 1. ASSESSMENT AND FEEDBACK PRACTICES PROMOTE EFFECTIVE STUDENT LEARNING

Assessment and feedback structure and timing is designed to support students from the project idea stage through final dissertation submission. Initial training is concentrated at the start of each semester to help students get started or resume their project work. Marked assessments are timed to encourage consistent working.

PRINCIPLE 2. ASSESSMENT AND FEEDBACK PRACTICES ARE APPROPRIATE, FAIR, AND TRANSPARENT

Assessment criteria are published to students and staff in advance of all submissions in dissertation guidance as well as one-page summary instructions for each submission. Where appropriate, marking sheets are provided to students. Project proposal, poster, and workshop marking is not anonymous. Dissertations are double-marked blindly and marks are submitted to the registrar independently ahead of agreeing final marks for the dissertations. When necessary, a third reader is engaged.

PRINCIPLE 3. ASSESSMENT AND FEEDBACK PRACTICES ARE CLEARLY COMMUNICATED TO STUDENTS AND STAFF

All staff and students have access to the CL448 page on MyPlace where guidance and assessment instruction sheets are provided. Notices ahead of submissions are also communicated by email to staff and students.

PRINCIPLE 4. ASSESSMENT AND FEEDBACK PRACTICES ARE CONTINUOUSLY REVIEWED

Assessment and feedback practices are reviewed annually and input is taken from students directly or via class representatives. Feedback from students is taken during the academic year as well.

Recommended Reading

Main literature is dependent upon the project. Useful resources for most engineering topics include Web of Knowledge and Scopus (both available via the University Library) as well as Google Scholar. Further online resources are available via MyPlace to aid in the production of the dissertation.

PLEASE NOTE:

Students need to gain a summative mark of 40% / 50% (please delete as appropriate) to pass the module. Students who fail the module at the first attempt will be re-examined during the August diet. This re-examination will consist entirely of exam / coursework / viva (please delete as appropriate).

Resit Arrangement

Unlike other classes, students are only entitled to one resit on the individual project. This assessment will be coursework related to the original dissertation submission as set out by the supervisor and course registrar.

Approved

Programme Director Signature:

Date of Last Modifications: 23 August 2019

(Updated August 2018)

