

Module Descriptor Form

Civil and Environmental Engineering

CL973 - Independent Study In Collaboration With Industry

Module Code	CL973	Module Title	Independent Study In Collaboration With Industry				
Module Registrar	Burnside, Dr Neil M						
Other Staff Involved							
Credit Weighting	10	Semester	1/2	Elective	No	Academic Level	5
Pre-requisites							
Required for							

Module Format and Delivery (hours):

Lectures	Tutorials	Assignments	Labs	Private Study	Total
5	0	95	0	0	100

Educational Aim

This module aims to:

Graduates increasingly need highly developed transferable professional skills to prepare for and to gain future employment. This class allows students to carry out projects with industry to develop and refine professional skills while gaining credits in the process. Since 2012 students have carried out more than 300 industry projects as part of this class for a wide range of organisations. Approval of students being able to take this class is done on a case-by-case basis by staff and industry contacts as an individualised learning contract. Students are selected by competitive application and CV. Although this is a S1+S2 class, realistically most of the work is done in S2 (approximately 25% in S1 and 75% in S2).

Students will be selected by competitive application and CV – done via MyPlace (by answering the questions in the “Quiz for CL973 Project Application - can choose more than one project”). Students will be selected based on the skills they already have to carry out a project. So, for example, if a project requires knowledge of Geographical Information Systems (GIS), then only students who already know how to use a GIS should apply for that project. Choosing the project would not be way to first learn about GIS. If students are unclear if they have the skills for a project, they should contact the academic contact before applying to projects.

It is fundamental that all students realise that CL973 is an independent project class (therefore the title “independent study”) and therefore it is not a class where you are told what to do. There are no lectures. Industry contacts will not contact you. Academic contact will not contact you. It is up to the student to contact industry and academic contacts. The initiative is all on your side. It is up to students to organise any meetings and organise the work to be done. This is why students are given an academic “contact” rather than an academic “supervisor”.

The class is designed to be self-directed which allows students to take ownership of their learning and explore topics that are of interest to them. However, it also means that the amount of contact with industry partners can vary depending on the specific project and the level of engagement from both the student and the partner. This is why all projects have an academic contact in addition to the industry contact, and the class registrar is also a key contact if needed. Note as well that industry contacts often get very enthusiastic about the student's projects but it is important that student (with the help of the academic contact) do not let project go over the 100 hours of work.

Syllabus

This module will teach the following:

There are a series of industry projects on offer with different academic contacts. Check the database "list of industry projects available this academic year". Initial overview session and MyPlace material explains projects available and how to apply. Students can apply to more than one project but if selected can only work in one project. See separate document in MyPlace with the title "Suggested methodology on how to select projects and important information on how to apply for projects".

The assignments are critical for this class:

- (1) Project problem statement (10% final mark)
- (2) Poster about the work carried out (20% final mark)
- (3) Substantial report (70% final mark)

The timing for all the projects is the same. Work is done in semesters 1 and 2 and the assignment deadlines are the same for all projects. Some of the projects can be expanded to become MSc dissertation projects after May (discuss this with both academic and industry contacts).

Timing is everything in this class. This is a S1 + S2 class. A meeting will take place with industry contact in S1. It is critical that student takes detailed notes, writes minutes of what was discussed and send that to industry contact after the meeting. It is fundamental that there is a clear understanding of what the work is about and also set up clear boundaries, so work is not too ambitious for the 100 hours of work. Writing a timetable of work and sending that to industry contact together with minutes of the meeting would be a very good idea.

Ideally the methodology should be designed in S1 and feedback should be received from industry contact and academic contact before the Christmas break. If a survey or interviews are planned, then what questions will be asked ideally needs to be decided in S1 and then ethics approval is needed before survey or interviews can be carried out.

The expectation is that all the data collection and analysis was done in S1 and start of S2 at the latest (leaving plenty of time to write report and send draft to industry contact for comment).

At the start of the S2 engage with industry contact and academic contact by sending an updated timetable of work and outline of planned report. The following could be sent to industry contact and academic contact:

1. Title of project
2. Industry contact
3. Summary of what has been done
4. Summary of what is left to be done
5. Key dates when you plan to do what is left to be done
6. How report will be structured in terms of sub-headings
7. Any issues or concerns

At least 1 month before the deadline for the final report, it is critical to send industry contact and academic contact a draft of the report. This opportunity of "feedforward" is unique to this class and students should take full advantage of it

Before students submit their final report, they will complete a compulsory database entry on Myplace about their project.

Learning Outcomes

On Completion of the module, the student is expected to be able to:

LO: 1	LO1 Be able to prepare a professional standard report of relevance to industry.
LO: 2	LO2 Be able to evaluate and apply to the specific project generic issues of commerciality, confidentiality, copyright, ethics and H&S, and be able to record professional standard minutes of business meetings and apply other project management tools (e.g. Gantt charts).
LO: 3	LO3 Be able to summarize the benefits of the work carried out for the industry and be able to communicate that relevance for a wider audience via a poster.

(UK SPEC suggests no more than 4 learning outcomes per module. Statements must be broad and be syllabus free and link in with the intended learning outcomes on the programme specifications.)

Assessment of Learning Outcomes - Criteria

Learning Outcome: 1

	Criteria
1	How well written and structured the report for industry contact (Assignment 3) is.
2	How many drafts will be needed until the final version of report fits the quality criteria so it can be given to industry contact. (Assignment 3)

Learning Outcome: 2

	Criteria
1	Evidence of professional standard in report (Assignment 3)
2	Evidence of professional standards in activity (Assignments 1, 2 and 3)
3	Evidence of professional standard of presentation and content (Assignments 2 and 3)

Learning Outcome: 3

	Criteria
1	How well communicated and relevant for a general audience is poster (Assignment 2).

Assessment Method(s) Including Percentage Breakdown and Duration of Exams

To Pass the module, students need to gain a summative mark of: 40%

Description	Semester	Start Week	Duration	Weight	Submission Week	Linked Criteria
Project problem statement	1	1		10%	10	LO 2: C2, C3
Project poster	2	1		20%	10	LO 2: C2, C3 LO 3: C1
Substantial report	2	1		70%	E	LO 1: C1, C2 LO 2: C1, C2, C3

Principles of Assessment Feedback

- Assistance (via meetings and email communication initiated by student) will be available to student to provide feedback.
- Students will have ample opportunities (via several drafts of final report to give to industry and academic contacts) to incorporate feedback and improve their performance.
- Feedback on draft poster will be provided.
- Self-motivation will be encouraged.

Additional Information

Further coursework details as follows:

- (1) Project problem statement (10% final mark). A concise 1-page document that clearly and concisely summarises the project problem and plan to address this problem. To be submitted by S1 week 10.
- (2) Project poster (30% final mark) – submitted and presented c. March during the public event “Student Sustainability Festival”
- (3) Substantial report (60% final mark) – 5,000-word report (including 2-page non-technical executive summary, introduction, literature review, methodology, results, discussion, conclusions & recommendations) to be submitted by end April.

Resit Procedure

New assignment, different from the coursework done previously.

Recommended Reading

For reference: Wainwright, G. (1984) Report writing: a new practical guide to effective report writing, presented in report form. London: Management Update

Module Timetable

Week	Semester 1	Semester 2
0		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10	Submission 10%	Submission 20%
11		
E		Submission 70%

Date of Last Modification

10-09-2025