Trinity College Dublin
Coláiste na Tríonóide, Baile Átha Cliath
The University of Dublin

School of

Engineering

Civil, Structural & Environmental Engineering Junior Sophistor 2025-2026

1. Contents

Alternative formats of the Handbook can be made on request.

1. General Course Information

1.1 Introduction

The School of Engineering was founded in 1841 and is one of the oldest Engineering Schools in the English speaking world. The Baccalaureus in Arte Ingeniaria (B.A.I.) degree was established in 1872 and early graduates played a major role in the development of local government services and infrastructure in 19th century Ireland, whilst others contributed as far a field as India, Australia, Africa, and Japan. In addition to many famous engineers, the list of graduates includes landscape artist Nathaniel Hone, and songwriter Percy French. Well- known graduates of more recent vintage include Patrick Prendergast , Chris Horn of Iona Technologies, John Maguire of Trintech and Paul Noonan of Bell X1 fame.

While there is a strong focus on technical content and problem solving in the syllabus, personal skills such as communication and teamwork are an integral part of your education. These skills are crucial in promoting an approach to lifelong learning, and this is particularly important in the dynamic context of engineering. The curriculum is revised on an ongoing basis, and we hope that you will continue to find it stimulating and intellectually rewarding. You will be given the opportunity to provide us with considered feedback of your experience during each year of your studies.

The College, of course, has a great deal to offer besides the formal academic programme, including the cultural, recreational, and sporting activities of the many student clubs and societies. You are strongly encouraged to participate in the breadth of College life in a balanced way. It is up to you to make the most of your Trinity experience.

Finally, be aware that College offers a wide range of support services. If you are experiencing problems or need to seek advice (personal, financial, health, career or academic), there are a number of sources of help available here. Do not hesitate to call on these services should the need arise. Each of you has been allocated a tutor, and he/she is an excellent resource to help you with identifying relevant support services.

We wish you a successful and enjoyable third year with the School of Engineering and the Department of Civil, Structural and Environmental Engineering.

Professor Margaret O'Mahony

Chair of Civil Engineering

Coordinator of the Junior Sophister year

Department of Civil, Structural and Environmental Engineering.

Professor Sarah Mc Cormack

Professor In Sustainable Energy

Head of Department

Department of Civil, Structural and Environmental Engineering.

1.2 JS Year Overview

The JS year is broken into two semesters and the examination for each module is at the end of the semester in which the module is taught (this may be subject to change at a later date). To do well in your JS year it is important to work consistently. It is particularly important, from your perspective, to work hard this year. In your last two years you have had the comfort that your exam performance did not impact on your final result. However, this is not the case in JS year, as your performance in JS year will constitute 30% of your overall BAI degree assessment.

1.3 Contact Details

Professor Margaret O'Mahony is the academic member of staff responsible for the Junior Sophister Civil Engineering class. If you have any questions relating to the JS course, Professor O'Mahony will be happy to help. Her email address is margaret.omahony@tcd.ie

Mr Liam McCarthy, Executive Officer lmccart4@tcd.ie Departmental Office, Museum Building, for general enquires.

Academic Contacts

Staff Name	Role/Title	Email	Location
Prof. Sarah Mc Cormack	Head of Department/Professor in Sustainable Energy	sarah.mccormack@tcd.ie	Simon Perry Bldg
Prof. Margaret O'Mahony	Chair of Civil Engineering	margaret.omahony@tcd.ie	Museum Bulding
Prof. Alan O'Connor	Chair of Structural Engineering	alan.oconnor@tcd.ie	Simon Perry Bldg
Prof. Laurence Gill	Chair of Environmental Engineering	gilll@tcd.ie	Museum Building
Prof. Karen Wiltshire	Chair of Climate Science	wiltshik@tcd.ie	Museum Bulding
Prof. Biswajit Basu	Professor of Computational Dynamics	basub@tcd.ie	Simon Perry Bldg
Prof. Brian Broderick	Professor in Civil Engineering	bbrodrck@tcd.ie	Simon Perry Bldg

Prof Brian Caulfield	Professor In Transportation	brian.caulfield@tcd.ie	Museum Building
Dr. D O'Dwyer	Assoc. Prof	dwodwyer@tcd.ie	Museum Bldg
Dr. Bidisha Ghosh	Assoc. Prof	bghosh@tcd.ie	Simon Perry Bldg
Dr. Brendan O'Kelly	Assoc. Prof.	bokelly@mail.tcd.ie	Simon Perry Bldg
Dr. Sara Pavia	Assoc. Prof.	pavias@tcd.ie	Simon Perry Bldg
Dr. Liwen Xiao	Assoc. Prof.	lxiao@tcd.ie	Hamilton Bldg
Dr. Breiffni Fitzgerald	Assoc. Prof	fitzgeb7@tcd.ie	Simon Perry Bldg
Dr. Muhammad Ali	Assist. Prof.	muhammad.ali@tcd.ie	Aras an Phiarsaigh
Dr. John Gallagher	Assist. Prof.	jgallag9@tcd.ie	Red Brick Bldg
Dr. John Hickey	Assist. Prof.	Hickeyj2@tcd.ie	Aras an Phiarsaigh
Dr. David Igoe	Assist. Prof.	igoed@tcd.ie	Red Brick Bldg
Dr. Patrick Morrisey	Assist. Prof.	patrick.morrisey@tcd.ie	Aras an Phiarsaigh
Dr. David O'Connell	Assist. Prof.	david.oconnell@tcd.ie	Watts Building
Dr. Mohammed Reza Ghaani	Assist. Prof.	mohammad.ghaani@tcd.ie	Aras an Phiarsaigh
Dr. Rui Teixeira	Assist. Prof.	Rui.Teixeira@tcd.ie	SP Building
Dr. Aimee Byrne	Assist. Prof.	Aimee.Byrne@tcd.ie	Aras an Phiarsaigh
Mr. David Mc Aulay	Chief Technical Officer	damcaley@tcd.ie	Simon Perry Bldg
Mr. Patrick Veale	Environmental Technical Officer	vealep@tcd.ie	Red Brick Bldg

1.4 Key Locations

Our labs are located in the Simon Perry Building and in the Red Brick Building next to it (they are labelled “Civil Engineering” on the map on the next page).

The Departmental Office for Civil Structural and Environmental Engineering is located on the first floor of the Museum Building.

Our Academic Staff are located in the Simon Perry Building, the Museum Bldg, the Red Brick Building and in Aras an Phiarsaigh.

References/Sources:

Interactive College Map

Blackboard

Academic Registry

Trinity College Dublin

Coláiste na Tríonóide, Baile Átha Cliath

The University of Dublin

1.5 Key Dates

The full academic year structure is also available via this link: **Academic Year Structure**

1.6 Timetable

The timetable can be found on the next page and also via the following links.

My TCD

Engineering Modules for Year 3

JS CIVIL, STRUCTURAL & ENVIRONMENTAL ENGINEERING, 2025/26 - TIMETABLE (Semester 1) 12/09/2025

		9	10	11	12	13	14	15	16	17
Monday	Lecture		3A2 [M21]	3A5 [M21]	3A2 [M17]				3E1 [TH, TBSI]	
	Tutorial						3E1 [Group A, LB01] Tutorial			
	Lab									
Tuesday	Lecture	Trinity Elective	Trinity Elective	3A5 [Demo Room]	3A7 [M21]	*Industry Seminar HAM4*				
	Tutorial									3E1 [Group C, DO]
	Lab						Civil Engineering Labs (wks 3 - 11)			
Wednesday	Lecture		3A12 Lectures [Demo Room]		3A5 [M21]		3A12 Group Design Session [3074]		3A7 [Demo Room]	3A7 [Demo Room]
	Tutorial					3E1 [Group B, HAM4]				
	Lab									
Thursday	Lecture		3E1 [MacNeil]			3A2 [GEOG.B]			Trinity Elective	Trinity Elective
	Tutorial			3A2 Tutorial [M20]						
	Lab									
Friday	Lecture	Trinity Elective		3E1 [MacNeil]						
	Tutorial									
	Lab						Site Visits (wks 3 - 11)			

… Timetable key is on next page

Timetable key

Module codes:

3E1 = MAU33E1 Engineering Mathematics V [5 credits]
3A2 = CEU33A02 Structural Design [5 credits]
3A5 = CEU33A05 Soil Mechanics [5 credits]
3A7 = CEU33A07 Transport Engineering [5 credits]
3A12 = CEU33A012 Civil Engineering Design Challenge [10 credits]

Venues:

Drawing Office = Drawing Office, Museum Building
M17 = M17, Museum Building
M21 = M21, Museum Building
M20 = Museum Building
MSc. Room = Simon Perry Building
MacNeill = Hamilton Building
2037 = Robert Emmet Theatre, Arts Building
Demo Room = Demonstration Room, Simon Perry Building
TH = Tercenenary Hall, TBSI, Pearse St
RH = Regent House

Laboratories

Please consult schedule

Semester dates:

First semester:
Monday, 15th September, 2025 to Friday, 5th December, 2025
Second semester:
Monday, 19th January, 2026 to Friday, 10th April 2026

Study/Review Weeks:

First semester:
Monday, 27th October 2025 to Friday, 31st October 2025
Second semester:
Monday, 2nd March 2026 to Friday, 6th March 2026

Examination dates:

Semester 1 examinations:

Monday, 8th December 2025 to Monday, 22nd December 2025*
(*contingency days may be required outside of the formal assessment weeks)

Semester 2 examinations:

Monday, 21st April, 2026 to Friday, 1st May, 2026**
(**contingency days may be required outside of the formal assessment weeks)

1.7 Internships

Internships are available in the Senior Sophister year. Students who are exiting with a B.A.I./B.Sc. degree must complete a capstone project during the Senior Sophister year. The internship project may be deemed to be equivalent to the capstone project upon consultation with the Director of Undergraduate Teaching and Learning and the relevant stream co-ordinator.

In order to be eligible to apply for the 4E4 Industrial Partnership/Internship module in the second semester of the Senior Sophister year, students must have a minimum grade of II.1 (60 – 69%) at the first sitting of the Junior Sophister Engineering examinations. Those required to sit supplemental Junior Sophister Engineering examinations will be deemed ineligible to apply. No exceptions to this rule will be considered.

Information on taking an internship can be viewed here:
SS Industrial Placement - Civil, Structural & Environmental Engineering - Trinity College Dublin (tcd.ie)

1.8 Placement and Pre-requisites information

The MAI programme is structured to facilitate delivery of higher-level content through prerequisite modules. The term 'prerequisite' indicates a module which it is strongly recommended to complete prior to engaging a new one. Only in exceptional circumstances will a student be permitted not to complete prerequisite modules. Some of the fourth year modules are prerequisites for some of the fifth year modules and some MAI projects in the different disciplines. In general, it will not be possible to take fifth-year modules or MAI projects without having completed the required prerequisites for these activities (see module descriptors for

details). Accordingly, for students opting for a placement in their fourth year, or for those following Unitech/Erasmus or another period of study abroad, it will be necessary to ensure prerequisites are met for a suitable set of modules and the project work in the fifth-year.

Meeting the prerequisites in cases where a student opts for a placement in their fourth year, or for those following Unitech/Erasmus or another period of study abroad might be achieved by:

1. In the case of a half-year placement, the student taking the prerequisite modules for their intended fifth year modules/project work in the semester they spend at College (this will generally be the first semester). Prerequisite modules will, where possible, be timetabled for the first semester.
2. In the case of a period of study abroad, the student taking modules equivalent to the prerequisites for their intended fifth-year modules/project work during their period of study abroad in their fourth year.
3. By the student taking only fifth-year modules/projects which do not have prerequisites.
4. By student taking fourth year prerequisite modules in the first semester of their fifth-year. However, for the latter option, since this would be on a case-by-case basis, the timetable cannot be specifically arranged to facilitate this.

   Thus, a student who opts for a placement or for a period of study abroad must understand that this will influence their options in the fifth-year. Accordingly, a student intending to pursue this option must do so in consultation with their Head of Department or his/her delegate. In special circumstances, where a student can demonstrate to the module coordinator that he/she has substantially met the learning outcomes of a prerequisite module through other means, students may be allowed to take the fifth-year module without having completed the designated fourth year prerequisite(s).

1.9 Study Abroad/Erasmus

Please note that the Study Abroad/Erasmus option is available either for the whole academic year or for Semester 2 only. Study abroad for Semester 1 only is not available as an option.

In order to qualify you will need to have obtained an overall mark of 60% for the third year, as a minimum. You will not qualify if you needed to sit any supplemental exams in the third year.

Via this link you can access further information, including a handbook, in which you will find the timeline for this option: Outgoing - Engineering | Trinity College Dublin (tcd.ie)

Your contact person in the School of Engineering is:

Chloe O'Connor, Global Officer: Internationaleng@tcd.ie

2. SCHOLARSHIPS AND PRIZES

Please follow the following link and navigate to Part D – Awards/D 10 – Prizes and other awards:

Undergraduate Studies - Calendar - Trinity College Dublin (tcd.ie)

2.1 Foundation Scholarships

The Foundation Scholarship is a College institution with a long history and high prestige.

The questions that are asked in the engineering scholarship exams are very challenging. They test a student's ability to think laterally, to solve unfamiliar problems and to tackle problems from first principles.

Although the syllabi for the scholarship exams and the end of year exams are the same, the nature of the questions in the scholarship exams is more challenging. A good scholarship question will require a creative leap or a deep insight of the fundamental principles.

The most important skill that is developed in an engineering education is problem solving. The most difficult problems to solve are those that are unfamiliar, that require a fundamental understanding of the basic principles and that require the student to make a creative or innovative leap.

Reference/Source:

Calendar Part II, D 10: Foundation and Non-Foundation Scholarships

3. ACADEMIC WRITING

Academic Integrity and Referencing Guide

At Trinity College Dublin, we commit ourselves as staff and students to acting responsibly and ethically, embracing integrity in all our actions and interactions as members of the College community. Understanding that integrity requires honesty, transparency and accountability, we agree to:

- Strive to do what we say we will, ensuring that we are aware of our commitments and responsibilities in order to fulfil them, and abiding by College and other relevant policies and the highest standards of conduct.
- Give credit where credit is due, recognizing and acknowledging the contributions and achievements of others in scholarship, teaching, research and service.
- Tell the truth, as a community and as individuals, speaking out and listening even when it is difficult, naming problems and honestly acknowledging mistakes.
- Hold ourselves and others to account for the things for which we are each responsible.
- Use resources for the purposes for which they are intended and be above reproach in financial dealings.
- Deal fairly, consistently and transparently with others.

Academic Integrity Policy PDF

Reference/Source

Calendar Part II, B: General Regulations & Information, 'Academic Integrity'

Statement of Principles on Integrity

Academic Integrity Policy (currently in development)

Library Guides - Academic Integrity

Coversheet Declaration

3.1 The Use and Referencing of Generative AI

Aligned with the College Statement on Artificial Intelligence and Generative AI in Teaching, Learning, Assessment & Research (2024), the use of GenAI is permitted unless otherwise stated. Where the output of GenAI is used to inform a student's document or work output, this usage should be acknowledged and appropriately cited, as per *Library guidelines on acknowledging and reference GenAI.* From an academic integrity perspective, if a student generates content from a GenAI tool and submits it as his/her/their own work, it is considered plagiarism, which is defined as academic misconduct in accordance with College Academic Integrity Policy.

References/Sources:

College Statement on Artificial Intelligence and Generative AI in Teaching, Learning, Assessment and Research

Library guidelines on acknowledging and reference GenAI.

3.2 Research Ethics

The quest for knowledge and the betterment of society through research are central to the mission of Trinity College. It is essential that all of our research is conducted with integrity and that it adheres to the highest standards of ethical oversight. Research excellence in College is guided by the principles described in the Policy on Good Research Practice document (2002; updated in 2009) and these principles apply to all research conducted by staff and students under the auspices of Trinity College. In order to ensure that we continue to operate at the highest levels of excellence all policies in this area are continuously reviewed by the Research Ethics Policy Committee (REPC).

All research with impact has an ethical dimension and all researchers should reflect on the implications of their work, not just in terms of human (and animal) welfare and dignity, but also the social and cultural impact of their research. Funding agencies are placing increasing importance on ethics approval procedures and the scope of research areas requiring ethical review is growing.

Reference/Source

Research Ethics

Policy on Good Research Practice

Ethics Policy

4. TEACHING AND LEARNING

4.1 Programme Architecture

At Trinity, many of our programmes offer pathways to give you the flexibility to focus or expand your areas of interest over your years at Trinity. Available pathways are subject to change and may be dependent subject to capacity.

Reference/Source

Trinity Pathways

4.2 Programme Structure and Workload

In your studies you should aim to work a minimum of 50 hours per week. With a timetabled schedule of about 25 hours per week, this means you should be planning independent study of at least 25 hours per week. This includes reading course material prior to lectures – you should not expect to be given all the module material in the lectures and tutorials. The table below details the modules, credit value and coordinator.

The integrated BAI/MAI degree programme is professionally accredited by Engineers Ireland and meets the educational requirements for corporate membership of this professional institution and registration as a chartered engineer. Further information can be found at: http://www.engineersireland.ie/Membership.aspx

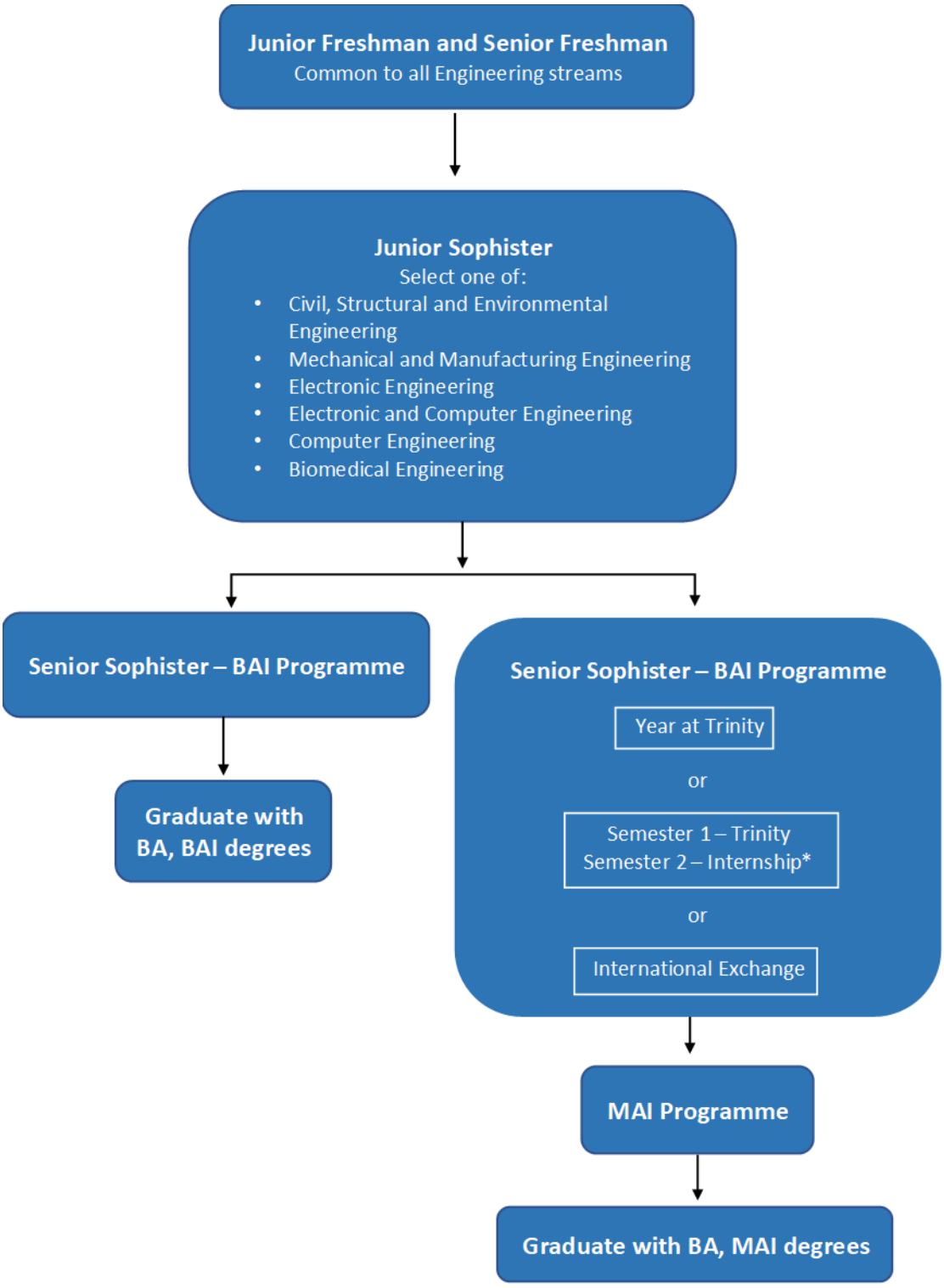
Senior Sophister students who are exiting with a B.A.I./B.Sc. degree must complete a capstone project. The internship project may be deemed to be equivalent to the capstone project upon consultation with the Director of Undergraduate Teaching and Learning and the relevant stream co-ordinator.

4.2.1 Third and fourth years

Courses in the third and fourth years aim to broaden and deepen your knowledge and understanding of the specialism you have chosen. You will also have the opportunity to take a Trinity Elective module and approved modules in other disciplines. Subjects are studied in much greater detail and students undertake real-life, practical projects. For example, if you choose Civil, Structural and Environmental Engineering you could end up testing the pre-cast concrete used to build the Paddington to Heathrow railway; If you choose Computer Engineering, you might find yourself building a microprocessor system.

4.2.2 Fifth year options with study abroad and internship opportunities

Engineering students require a Master's degree to be directly eligible for Chartered Engineer status with Engineers Ireland. Therefore the School offers several options for a fifth year leading to a masters degree (M.A.I.).


Junior Freshman and Senior Freshman
Common to all Engineering streams
Junior Sophister
Select one of:
Civil, Structural and Environmental Engineering
Mechanical and Manufacturing Engineering
Electronic Engineering
Electronic and Computer Engineering
Computer Engineering
Biomedical Engineering
Senior Sophister – BAI Programme
Graduate with BA, BAI degrees
Senior Sophister – BAI Programme
Year at Trinity
or
Semester 1 – Trinity
Semester 2 – Internship*
or
International Exchange
MAI Programme
Graduate with BA, MAI degrees

4.3 Modules and module descriptors

In your studies you should aim to work a minimum of 50 hours per week. With a timetabled schedule of about 25 hours per week, this means you should be planning independent study of at least 25 hours per week. This includes reading course material prior to lectures – you should not expect to be given all the module material in the lectures and tutorials. The table below details the modules, credit value and coordinator.

Course Code	Module Title	ECTS	Semester	Coordinator
School Modules				
MAU3E01	Engineering Mathematics V	5	SEM 1	Prof. Tristan McLoughlin
EEU33E03	Probability and Statistics	5	SEM 2	To be advised
Trinity Elective taken in Semester 1 2023 (5 ECTS) www.tcd.ie/trinity-electives/				
Civil Engineering modules				
CEU33A10	Surveying and Geo-spatial Planning	5	SEM 2	To be advised
CEU33A02	Structural Design	5	SEM 1	Assist. Prof.Breiffni Fitzgerald
CEU33A11	Fluids and Environment	5	SEM 2	To be advised
CEU33A04	Structural Analysis	5	SEM 2	Prof. Dermot O'Dwyer
CEU33A05	Geotechnical Engineering	5	SEM 1	Prof. Brendan O'Kelly
CEU33A07	Transport Engineering	5	SEM 1	Prof. Margaret O'Mahony
CEU33A08	Geology for Engineers	5	SEM 2	Prof. Sara Pavia
CEU33A12	Civil Engineering Design Challenge	10	SEM 1&2	Prof. Margaret O'Mahony

4.4 Module Descriptors & Compulsory Reading Lists

Please consult individual module descriptors for information on required reading.

View module descriptors via this link: Year 3

The School reserves the right to amend the list of available modules and to withdraw and add modules. Timetabling may restrict the availability of modules to individual students.

Use of the institutional Virtual Learning Environment (VLE) should facilitate enhancement of the Trinity student learning experience by providing each student with ongoing access to module information, activities and learning resources outside formal timetables and class time.

Reference/Source:

Policy on Trinity Virtual Learning Environment

4.5 Learning Outcomes

As required by Engineers Ireland, the Programme Outcomes are as follows:

a) Advanced knowledge and understanding of the mathematics, sciences, engineering sciences and technologies underpinning their branch of engineering.

b) The ability to identify, formulate, analyse and solve complex engineering problems.

c) The ability to perform the detailed design of a novel system, component or process using analysis and interpretation of relevant data.

d) The ability to design and conduct experiments and to apply a range of standard and specialised research (or equivalent) tools and techniques of enquiry.

e) An understanding of the need for high ethical standards in the practice of engineering, including the responsibilities of the engineering profession towards people and the environment.

f) The ability to work effectively as an individual, in teams and in multidisciplinary settings, together with the capacity to undertake lifelong learning.

g) The ability to communicate effectively on complex engineering activities with the engineering community and with society at large.

4.6 Registration

At the end of your first and second year at Trinity, you will be asked to choose which type of degree you wish to be awarded and what options you want to take along the way. This is known as your Trinity Pathway and you can make your pathway choices online in your my.tcd.ie portal. More information is available here

If you are off books but have completed assessments this year you will be invited to make pathway selections at the same time as the other students.

If you are off books without any assessments this year and are returning to college, please contact your School or course office. They will then contact Academic Registry on your behalf to get your status and pathway updated.

Reference/Source:

Trinity Pathway Selection

4.7 Coursework Requirements

8.3.1 Submission guidelines

Please pay attention to the guidelines for submission. These may vary from module to module. Ensure that you submit on time and, where appropriate, that your submission has been logged. It is good practice to keep a digital copy of your submissions.

The work you submit must be your own. College has very strict guidelines concerning plagiarism.

8.3.2 Policy on late submission

Coursework and assessment is an essential part of a student's learning to reinforce aspects of module content. You are enrolled on an accredited professional programme and are expected to submit work on time. Submitting work late is a habit you should avoid. It is never too early in your career to start to plan your work so you meet your deadlines. Late submissions delay feedback and in group work you risk incurring a penalty on the other members of your group.

Late submissions may be penalized or not accepted. Submission dates may be extended in exceptional and extenuating circumstances. In such circumstances, students must apply directly (via email) to the module coordinator requesting an extension and provide an explanation and/or evidence for such (e.g. medical cert). Please note that the module coordinator reserves the right to refuse granting of an extension.

8.3.3 Policy on participation in continuous assessment-based modules

Students who are absent from a third of their lectures, tutorials, or labs of a continuous assessment-based module or who fail to submit a third of the required coursework will be deemed non-satisfactory.

Students reported as non-satisfactory for both semesters of a given year may be refused permission to take their examinations and may be required by the Senior Lecturer to repeat the year.

Accessible Information Policy

Trinity College Dublin is committed to a policy of equal opportunity in education, and to ensuring that students and staff have as complete and equitable access to all facets of College life as can reasonably be provided.

The Trinity Accessible Information Policy sets out a formal commitment by Trinity that information should be available in an accessible format, without discrimination against those with print disabilities.

Accessible Information is far reaching and includes printed information, web pages, presentation materials such as PowerPoint and information technology. To this end, Trinity has developed a clear information policy and guidelines which outline how Trinity can ensure information is accessible to all.

- Accessible Information Policy **PDF**
- A range of student support services may be accessed here

Reference/Source:

Student Learning Development

Accessible Information Policy

4.8 Capstone Project

The Capstone project — though defined differently by different subjects — is the common element across all degree exit routes and is weighted at 20 ECTS. It requires a significant level of independent research by the student.

The Capstone should:

- be an integrative exercise that allows students to showcase skills and knowledge which they have developed across a range of subject areas and across the four years of study
- result in the production of a significant piece of original work by the student
- provide students with the opportunity to demonstrate their attainment of the four graduate attributes: to think independently, to communicate effectively, to develop continuously and to act responsibly.

Reference/Source:

Capstone website

Policy on Good Research Practice

4.9 Marking Scale

The following Descriptors are given as a guide to the qualities that assessors are seeking in relation to the grades usually awarded. A grade is the anticipated degree class based on consistent performance at the level indicated by an individual answer. In addition to the criteria listed examiners will also give credit for evidence of critical discussion of facts or evidence.

Guidelines on Grades for Essays and Examination Answers

Mark Range	Criteria
90-100	IDEAL ANSWER; showing insight and originality and wide knowledge. Logical, accurate and concise presentation. Evidence of reading and thought beyond course content. Contains particularly apt examples. Links materials from lectures, practicals and seminars where appropriate.
80-89	OUTSTANDING ANSWER; falls short of the 'ideal' answer either on aspects of presentation or on evidence of reading and thought beyond the course. Examples, layout and details are all sound.
70-79	MAINLY OUTSTANDING ANSWER; falls short on presentation and reading or thought beyond the course but retains insight and originality typical of first class work.
65-69	VERY COMPREHENSIVE ANSWER; good understanding of concepts supported by broad knowledge of subject. Notable for synthesis of information rather than originality. Sometimes with evidence of outside reading. Mostly accurate and logical with appropriate examples. Occasionally a lapse in detail.
60-64	LESS COMPREHENSIVE ANSWER; mostly confined to good recall of coursework. Some synthesis of information or ideas. Accurate and logical within a limited scope. Some lapses in detail tolerated.
55-59	SOUND BUT INCOMPLETE ANSWER; based on coursework alone but suffers from a significant omission, error or misunderstanding. Usually lacks synthesis of information or ideas. Mainly logical and accurate within its limited scope and with lapses in detail.
50-54	INCOMPLETE ANSWER; suffers from significant omissions, errors and misunderstandings, but still with understanding of main concepts and showing sound knowledge. Several lapses in detail.

45-49	WEAK ANSWER; limited understanding and knowledge of subject. Serious omissions, errors and misunderstandings, so that answer is no more than adequate.
40-44	VERY WEAK ANSWER; a poor answer, lacking substance but giving some relevant information. Information given may not be in context or well explained but will contain passages and words which indicate a marginally adequate understanding.
35-39	MARGINAL FAIL; inadequate answer, with no substance or understanding, but with a vague knowledge relevant to the question.
30-34	CLEAR FAILURE; some attempt made to write something relevant to the question. Errors serious but not absurd. Could also be a sound answer to the misinterpretation of a question.
0-29	UTTER FAILURE; with little hint of knowledge. Errors serious and absurd. Could also be a trivial response to the misinterpretation of a question.

Guidelines on Marking Projects/Dissertation Assessment

Mark Range	Criteria
90-100	Exceptional project report showing broad understanding of the project area and exceptional knowledge of the relevant literature. Exemplary presentation and analysis of results, logical organisation and ability to critically evaluate and discuss results coupled with insight and novelty/originality. Overall an exemplary project report of publishable quality (e.g. peer reviewed scientific journal/patent application).
80-89	An excellent project report clearly showing evidence of wide reading far above that of an average student, with excellent presentation and in-depth analysis of results. Clearly demonstrates an ability to critically evaluate and discuss research findings in the context of relevant literature. Obvious demonstration of insight and novelty/originality. An excellently executed report overall of publishable quality (e.g. short peer reviewed conference paper such as IEEE) with very minor shortcomings in some aspects.
70-79	A very good project report showing evidence of wide reading, with clear presentation and thorough analysis of results and an ability to critically evaluate and discuss research findings in the context of relevant literature. Clear indication of some insight and novelty/originality. A very competent and well-presented report overall but falling short of excellence in some aspects. Sufficient quality and breadth of work similar to the requirements for an abstract at an international scientific conference.
60-69	A good project report which shows a reasonably good understanding of the problem and some knowledge of the relevant literature. Mostly sound presentation and analysis of results but with occasional lapses. Some relevant interpretation and critical evaluation of results, though somewhat limited in scope. General standard of presentation and organisation adequate to good.

50-59	A moderately good project report which shows some understanding of the problem but limited knowledge and appreciation of the relevant literature. Presentation, analysis and interpretation of the results at a basic level and showing little or no novelty/originality or critical evaluation. Insufficient attention to organisation and presentation of the report.
40-49	A weak project report showing only limited understanding of the problem and superficial knowledge of the relevant literature. Results presented in a confused or inappropriate manner and incomplete or erroneous analysis. Discussion and interpretation of result severely limited, including some basic misapprehensions, and lacking any novelty/originality or critical evaluation. General standard of presentation poor.
20-39	An unsatisfactory project containing substantial errors and omissions. Very limited understanding, or in some cases misunderstanding of the problem and very restricted and superficial appreciation of the relevant literature. Very poor, confused and, in some cases, incomplete presentation of the results and limited analysis of the results including some serious errors. Severely limited discussion and interpretation of the results revealing little or no ability to relate experimental results to the existing literature. Very poor overall standard of presentation.
0-19	A very poor project report containing every conceivable error and fault. Showing virtually no understanding or appreciation of the problem and of the literature pertaining to it. Chaotic presentation of results, and in some cases incompletely presented and virtually non-existent or inappropriate or plainly wrong analysis. Discussion and interpretation seriously confused or wholly erroneous revealing basic misapprehensions.

Reference/Source:

Calendar II, Part B: General Regulations and Information

4.10 Attendance Requirements

17 All students must begin attendance at the College not later than the first day of teaching term, unless they have previously obtained permission from the Senior Lecturer through their tutor.

18 Students must attend College during the teaching term. They must take part fully in the academic work of their class throughout the period of their course. Lecture timetables are published through my.tcd.ie and on school or department notice-boards before the beginning of Michaelmas teaching term. The onus lies on students to inform themselves of the dates, times and venues of their lectures and other forms of teaching by consulting these timetables.

19 The requirements for attendance at lectures and tutorials vary between the different faculties, schools and departments. Attendance is compulsory for Junior Freshmen in all subjects. The school, department or course office, whichever is relevant, publishes its requirements for attendance at lectures and tutorials on notice-boards, and/or in handbooks and elsewhere, as appropriate. For professional reasons lecture and tutorial attendance in all years is compulsory in the School of Engineering, the School of Dental Science, the School of Medicine, the School of Nursing and Midwifery, the School of Pharmacy and Pharmaceutical Sciences, for the B.S.S. in the School of Social Work and Social Policy, and for the B.Sc. in Clinical Speech and Language Studies. Attendance at practical classes is compulsory for students in all years of the moderatorship in drama and theatre studies and drama studies Trinity joint honours.

20 In special circumstances exemption from attendance at lectures for one or more terms may be granted by the Senior Lecturer; application for such exemption must be made in advance through the tutor. Students granted exemption from attendance at lectures are liable for the same annual fee as they would pay if attending lectures. Students thus exempted must perform such exercises as the Senior Lecturer may require. If these exercises are specially provided, an additional fee is usually charged.

21 Students who in any term have been unable, through illness or other unavoidable cause, to attend the prescribed lectures satisfactorily, may be granted credit for the term by the Senior Lecturer and must perform such supplementary exercises as the Senior Lecturer may require. The onus for informing the Senior Lecturer of illness rests with individual students, who should make themselves familiar with the general and more detailed school or course regulations regarding absence from lectures or examinations through illness.

22 Students who are unable to attend lectures (or other forms of teaching) due to disability should immediately contact the Disability Service to discuss the matter of a reasonable accommodation. Exceptions to attendance requirements for a student, on disability grounds, may be granted by the Senior Lecturer following consultation with the student's school, department or course office, and the Disability Service.

23 Students who find themselves incapacitated by illness from attending lectures (or other forms of teaching) should immediately see their medical advisor and request a medical certificate for an appropriate period. Such medical certificates should be copied to the school, department or course office, as appropriate, by the student's tutor.

Non-satisfactory attendance

24 All students must fulfil the course requirements of the school or department, as appropriate, with regard to attendance. Where specific requirements are not stated, students may be deemed non-satisfactory if they miss more than a third of their course of study in any term.

25 At the end of the teaching term, students who have not satisfied the school or department requirements, as set out in §§19 and 24 above, may be reported as non-satisfactory for that term. Students reported as non-satisfactory for the Michaelmas and Hilary terms of a given year may be refused permission to take their semester two assessment/examinations and may be required by the Senior Lecturer to repeat their year. Further details of procedures for reporting a student as non-satisfactory are given on the College website at www.tcd.ie/academicregistry/studentcases.

Fitness to study

26 Issues may arise from time to time, which affect a student's ability or suitability to participate in his or her course and/or to participate in activities associated with attending College. A policy on fitness to study has been approved to implement aspects of the chapter on Student Conduct and Capacity, and its schedules, in the 2010 Consolidated Statutes. The primary purpose of the policy is to support students by identifying concerns and putting in place actions and supports, where possible, to help the student to continue with their programme of study. In serious cases, a student may be required to withdraw until they are fit to resume their studies or may be excluded from the College. Full details of the fitness to study policy, related procedures, decision making responsibilities, possible decisions, student representation and appeals mechanisms are found at www.tcd.ie/about/policies

Reference/Source:

Calendar Part II, B: General Regulations and Information, 'Attendance'

4.11 Absence from Examinations

52 Students who may be prevented from sitting an examination or examinations (or any part thereof) due to illness should seek, through their tutor, permission from the Senior Lecturer in advance of the assessment session to defer the examination(s) to the reassessment session. Students who have commenced the assessment session, and are prevented from completing the session due to illness should seek, through their tutor, permission to defer the outstanding examination(s)/assessment(s) to the reassessment session. In cases where the assessment session has commenced, requests to defer the outstanding examination(s) on medical grounds, should be submitted by the tutor to the relevant school/departmental/course office. If non-

medical grounds are stated, such deferral requests should be made to the Senior Lecturer, as normal.

53 Where such permission is sought, it must be appropriately evidenced: (a) For illness: medical certificates must state that the student is unfit to sit examinations/ complete assessments and specify the date(s) of the illness and the date(s) on which the student is not fit to sit examinations/complete assessments. Medical certificates must be submitted to the student's tutor within three days of the beginning of the period of absence from the assessment/examination. (b) For other grave cause: appropriate evidence must be submitted to the student's tutor within three days of the beginning of the period of absence from the assessment/examination.

54 Where illness occurs during the writing of an examination paper, it should be reported immediately to the chief invigilator. The student will then be escorted to the College Health Centre. Every effort will be made to assist the student to complete the writing of the examination paper.

55 Where an examination/assessment has been completed, retrospective withdrawal will not be granted by the Senior Lecturer nor will medical certificates be accepted in explanation for poor performance.

56 If protracted illness prevents a student from taking the prescribed assessment components, so that they cannot rise into the next class, they may withdraw from College for a period of convalescence, provided that appropriate medical certificates are submitted to the Senior Lecturer. If the student returns to College in the succeeding academic year they must normally register for the year in full in order to fulfil the requirements of their class. See §26 on fitness to study and §28 fitness to practise, if relevant.

57 Where the effects of a disability prevent a student from taking the prescribed assessment components, so that they cannot rise into the next class, the Senior Lecturer may permit the

student to withdraw from College for a period of time provided that appropriate evidence has been submitted to the Disability Service. If they return to College in the succeeding academic year they must normally register for the year in full in order to fulfil the requirements of their class.

58 The nature of non-standard examination accommodations, and their appropriateness for individual students, will be approved by the Senior Lecturer in line with the Council-approved policy on reasonable accommodations. Any reports provided by the College's Disability Service, Health Service or Student Counselling Service will be strictly confidential.

Reference/Source:

Calendar Part II, B: General Regulations and Information, 'Absence'

Academic Policies

4.12 External Examiner

Katherine A. Cashell

University College London, Department of Civil Environmental and Geomatic Engineering

UCL GM01 Chadwick

Building, Gower St, London WC1E 6AE

Reference/Source:

Procedure for the Transfer to External Examiners of Students' Assessed Work

4.13 Progression Regulations

The regulations governing undergraduate progression and awards are shared across all programmes and have applied to all undergraduate students on all programmes from 2018/19.

Student queries relating to Progression and Awards regulations should be directed to the relevant programme office. Queries from academic and professional colleagues and those seeking additional information should be made to Academic.Affairs@tcd.ie

Progression regulations: Bachelor programmes

59 Some programmes with professional accreditation have received a derogation from specific regulations on progression by the University Council. The relevant programme entry provides these details. See www.tcd.ie/teaching-learning/academic-affairs/ug-prog-award-regs/derogations /by-school.php. In order to rise with their class, students must obtain credit for the academic year by satisfactory attendance at lectures and tutorials and by carrying out, submitting and sitting the required assessment components. In addition, students must pass the year by achieving, at a minimum, an overall credit-weighted average pass mark for the year (40 per cent or 50 per cent, as per programme regulations) and either: (a) accumulate 60 credits by achieving at least the pass mark in all modules or (b) pass by compensation. All modules and components within modules are compensatable (except in particular professional programmes where compensation does not apply). To pass a year by compensation, in programmes that locate the pass mark at 40 per cent, a student must achieve the pass mark in modules carrying a minimum of 50 credits and obtain a module mark of at least 35 per cent in any remaining module(s). A student may accumulate a maximum of 10 credits at qualified pass where the mark lies between 35-39 per cent. To pass a year by compensation, in programmes that locate the pass mark at 50 per cent, a student must achieve the pass mark in modules carrying a minimum of 50 credits and obtain a module mark of at least 45 per cent in any remaining module(s). A student may accumulate a maximum of 10 credits at qualified pass where the mark lies between 45-49 per cent.

60 Progression is on an annual basis. Within a year students may carry failed modules from one semester to the next but not from one academic year to another; that is, they will not be able to rise to the next year of their programme until they have successfully completed the preceding year(s). Students who have not passed their year are required to present for reassessment when: (a) they obtain in excess of 10 credits at qualified pass (i.e. marks between 35-39 per cent where the pass mark is 40 per cent; or 45-49 per cent where the pass mark is 50 per cent); (b) they fail any module (i.e. achieving marks below 35 per cent where the pass mark is 40 per cent; or below 45 per cent where the pass mark is 50 per cent); (c) they do not obtain an overall pass mark for the year; (d) any combination of (a) - (c) occurs.

61 If a student has achieved both fail and qualified pass grades at the first sitting or has exceeded the 10 credit limit allowed for compensation and is not permitted to rise with their year, they must present for reassessment in all modules for which they obtained a fail and/or a qualified pass.

62 Different modalities of assessment to the first sitting are permitted in the reassessment session, as determined by the programme.

63 The same progression and compensation regulations as outlined above apply at the reassessment session. The overall credit-weighted average for the academic year will be calculated using the most recent marks achieved. 4See individual entries for applicable certificate and diploma course progression regulations.

64 Students who fail to satisfy the requirements of their year at the reassessment session are required to repeat the year in full (i.e. all modules and all assessment components).

65 Students are permitted to repeat any year of an undergraduate programme subject to not repeating the same year more than once and not repeating more than two academic years within a degree course, except by special permission of the University Council.

66 The maximum number of years to complete an undergraduate degree is six years for a standard four-year programme and seven years for a five-year programme.

Reference:/Sources:

Calendar Part II, B: General Regulations & Information

Calendar Part II, C: Specific Regulations

4.14 Awards

Degree options available to students on the undergraduate programmes, e.g. Single Honours, Joint Honours, Major with Minor, or Multidisciplinary, where Exit Awards (B.A. (Ord.) exist this information must be included. A statement on the QQI – NFQ Level must be included.

Students who complete the third year by examination and who choose not to proceed to or fail to complete satisfactorily the fourth year of the Engineering or Engineering with Management course may elect to be conferred with the ordinary degree of B.A. (this is NOT a B.A. in Mathematics).

Those Engineering students who exit the course having obtained credit for years one to four of the course are entitled to the degrees of B.A. and B.A.I. The B.A.I. degree award is based on an overall average mark calculated by combining the average mark achieved in the Junior Sophister examinations (30% towards overall average) and the Senior Sophister examinations (70% towards overall average).

Students who have obtained credit for all five years of the course are entitled to the degrees of B.A. and M.A.I. (St.).

4.15 Eligibility for MAI

Note: students must pay a tuition fee for the MAI year:

https://www.tcd.ie/academicregistry/fees-and-payments/

Students must achieve a minimum overall mark of 60% for the combined Junior Sophister and Senior Sophister years (on a 30:70 basis) at the annual session of the B.A.I. / B.Sc. degree year.

References/Sources:

National Framework for Qualifications

Trinity Pathways

Trinity Courses

4.16 Graduate Attributes

Throughout their time at Trinity, our students will be provided with opportunities to develop and evidence achievement of a range of graduate attributes that support their academic growth. Graduate attributes can be achieved in academic and co- and extra-curricular activities.

4.17 Professional and Statutory Body Accreditation

The integrated BAI/MAI degree programme is professionally accredited by Engineers Ireland and meets the educational requirements for corporate membership of this professional institution and registration as a chartered engineer. Further information can be found at: http://www.engineersireland.ie/Membership.aspx

4.18 Student Feedback and Evaluation

The Staff/Student Liaison Committee meets once a semester to discuss matters of interest and concern to students and staff. It comprises class representatives from each year. A programme level survey is issued online to students towards the end of semester 2.

References/Sources:

Student Evaluation and Feedback

Student Partnership Policy

Procedure for the Conduct of Focus Groups for Student Feedback on Modules and Programmes