School of Engineering

Junior Freshman Engineering Student Handbook 2018 - 2019
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A Note on this Handbook

This handbook applies to all students taking the Junior Freshman Year of the B.A.I. and M.A.I. Engineering degree courses. It provides a guide to what is expected of you on this programme and the academic and personal support available to you. Please read it carefully and retain for future reference.

The information provided in this handbook is accurate at time of preparation. Any necessary revisions will be notified to students via e-mail. Please consult the Engineering School website for further information. Please note that, in the event of any conflict or inconsistency between the General Regulations published in the University Calendar and information contained in course handbooks, the provisions of the General Regulations will prevail.
2. Introduction

You are very welcome to the TCD School of Engineering, an institution rich in tradition and progressive in outlook. The School was founded in 1841 and is one of the oldest Engineering Schools in the English speaking world. The \textit{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 19\textsuperscript{th} century Ireland, whilst others contributed as far afield 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 (current Provost of Trinity), Chris Horn of Iona Technologies, John Maguire of Trintech and Paul Noonan of Bell X1 fame.

In joining the engineering community, you will be making a creative contribution to making the world a more liveable place and to building economic prosperity. The core philosophy of the B.A.I./M.A.I. degrees is to first establish the basic principles common to all aspects of engineering. Thus, all students follow a common programme for the first two ‘freshman’ years followed by two ‘sophister’ years of specialisation in the different branches of engineering if they wish to take the B.A.I. degree and three years of specialisation if they go on to M.A.I. level. Admission to the M.A.I. level is subject to performance in the Junior Sophister and Senior Sophister years, see the \textit{School Examination Regulations}. The M.A.I. is a professional degree accredited by \textit{Engineers Ireland} and is recognised across the world through international agreements.

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 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 seek advice (personal, financial, health, career or academic), there are a number of sources of help available listed in Section 15 of this booklet. 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 first year at University.

\textit{Henry Rice}  
\textit{Head of School}  
\textit{School of Engineering}  

\textit{Professor Henry Rice}  
\textit{Head of School}  
\textit{School of Engineering}  

\textit{Professor Alan O’Connor}  
\textit{Director of Undergraduate Teaching and Learning}  
\textit{School of Engineering}  

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3. Staff Contacts

School of Engineering, First Floor, Museum Building

Head of School
Professor Henry Rice  (hrice@tcd.ie)

Director of Undergraduate Teaching and Learning
Professor Alan O’Connor   (oconnoaj@tcd.ie)

Administrative Officer
Ms Judith Lee    (julee@tcd.ie)

Executive Officer
Mr Conor Tobin    (tobinc7@tcd.ie)

Engineering Global Office   (internationaleng@tcd.ie)

Department of Civil, Structural and Environmental Engineering, First Floor, Museum Building

Head of Department
Associate Professor Aonghus Mc Nabola  (amcnabo@tcd.ie)

Senior Executive Officer
Mr. Daniel Wearen   (wearend@tcd.ie)

Executive Officer
Ms. Mary Curley    (curleyma@tcd.ie)
Department of Mechanical and Manufacturing Engineering, Ground Floor, Parsons Building

BAI/MAI Co-Ordinator
Associate Professor Anthony Robinson  (arobins@tcd.ie)

Executive Officers
Ms. Nicole Byrne  (nbyrne3@tcd.ie)
Ms. Melissa Caffrey  (caffrem@tcd.ie)
Department of Electronic and Electrical Engineering, First Floor, Printing House

Head of Department
Professor Anil Kokaram (anil.kokaram@tcd.ie)

Executive Officer
Ms. Teresa Lawlor (tmlawlor@tcd.ie)

School of Computer Science and Statistics, O’Reilly Institute

Head of School
Professor Carol O’Sullivan (headscss@scss.tcd.ie)

Director of Undergraduate Teaching and Learning
Assistant Professor Jonathan Dukes (jonathan.dukes@tcd.ie)

School Administrative Manager
Ms. Olivia Lombard (olivia.lombard@scss.tcd.ie)

Administrative Officer
Ms. Lynn Daly (lynn.daly@scss.tcd.ie)

Administrative Officer
Ms. Kaukab Fatima Naqvi (kaukab.naqvi@scss.tcd.ie)
All enquiries regarding forms, letters, student fees, examinations, registration etc. to be directed to the Academic Registry:
- Log an enquiry via ASK AR on the my.tcd.ie portal
- Via email at academic.registry@tcd.ie
- Via phone at 4500 [for students] or 4501 [for staff]

4. General School Information

4.1 History

The School of Engineering in Trinity College Dublin was founded in 1842. Initially, the duration of the engineering course was two years but this was extended in 1845 to three and in 1957 to four years. Diplomas were awarded at first but the Degree of ‘Baccalaureus in Arte Ingeniaria’ (B.A.I.) was instituted in 1872.

In the early development of the School, the emphasis was on Structural and Hydraulic Engineering, but in the 1960s alternative modules were established to enable the study in the later years of Civil Engineering, Mechanical/Production Engineering, Electronics or Computer Engineering.

In 1969, a major restructuring of the curriculum took place. During the first three years, the course provided was a foundation in engineering science and computer science, with a wide range of options in the final year in the general areas of Civil, Electrical/Electronic, Mechanical/Manufacturing and Computer Engineering.

In 1981, a new curriculum was introduced to meet the needs of the government expansion in technological education. During the first two years, students follow a common curriculum of foundation modules, and may choose from a number of electives in the third, fourth and optional fifth (should you decide to complete the MAI) year of the degree programme. Engineering practice in all of these electives has evolved significantly over the last three decades, with major growth in the area of engineering simulation to complement fundamental analysis and the physical design and build approaches.
4.2 Current structure

The Sophister year electives are now grouped to permit students to major in one of the following areas of the engineering profession:

- Biomedical Engineering
- Civil, Structural and Environmental Engineering
- Computer Engineering
- Electronic Engineering
- Electronic/Computer Engineering
- Mechanical and Manufacturing Engineering

Further information on electives and choice of engineering stream/specialism is given to students towards the end of the second year.

The course lasts four years for a B.A.I. degree (level 8), with an optional year (providing students meet minimum requirements as set out in the examination rules) leading to a M.A.I. (Masters in Engineering [Studia]) degree (level 9). The M.A.I. degree is required by the professional body (Engineers Ireland) for individuals to apply for Chartered Engineer status. **Should students wish to undertake the fifth year for the M.A.I. degree, postgraduate fees will apply for both EU and Non EU students.** There is provision for an abridgement of the course to three years for a B.A. degree.

Students following the M.A.I. degree may choose to follow an internship programme in the second semester of their Senior Sophister year. This is a 30 ECTS credit module where the student will spend time in a company or research institution or clinic as appropriate to their chosen specialisation, and they will work on a topic of importance to their place of internship. Students who take this option will not take any College-based modules in the second semester of the Senior Sophister year. Students wishing to take this option will need to satisfy certain academic requirements and secure an internship position.

4.3 5th Year Options

The School offers several options for a 5th year leading to an M.A.I. (Masters in Engineering [Studia]) degree. **Should students wish to undertake the fifth year for the M.A.I. degree, fees will apply.**

4.4 Double Qualification with INSA de Lyon

Suitably qualified students may, at the end of their second year, apply for transfer to the double diploma qualification programme, run jointly with the INSA de Lyon, the largest Engineering School in France. Instruction at INSA de Lyon is through French and students will be required to have a high
standard of language competence before participating on the programme. At the end of a five-year double qualification programme TCD students may receive, in addition to the B.A.I., the Diplôme de l’INSA, which confers full professional accreditation in France.

4.5 M.A.I. (Domestic)

This entails spending the 4th and 5th year in Trinity College, undertaking additional modules in the specialisation as well as group project work in 4th year and a significant individual project in 5th year.

4.6 M.A.I. (International – Option 1)

This is offered in collaboration with the European CLUSTER Programme, a consortium of 12 universities. The student spends their 4th year abroad and returns to complete their 5th year at TCD. The other partner universities are: Technical University of Catalonia, Barcelona; Technische Universität Darmstadt; Technische Universiteit Eindhoven; Institut Polytechnique de Grenoble; Instituto Superior Técnico Lisbon; Katholieke Universiteit Leuven/Université Catholique de Louvain; Helsinki University of Technology; Karlsruhe Institute of Technology; Ecole Polytechnique Fédérale de Lausanne; Politecnico di Torino; KTH Royal Institute of Technology Stockholm.

4.7 M.A.I. (International – Option 2)

This is offered in collaboration with the UNITECH Programme, a consortium of 8 universities and 13 multinational corporate partners. Students spend one semester in a partner university followed by a six month internship with one of the corporate partners.

Partner universities: Chalmers University of Technology, Gothenburg; INSA de Lyon; ETH Zurich; Loughborough University; Politecnico di Milano; RWTH Aachen University; University of Technology Delft; Universitat Politècnica de Catalunya, Barcelona.

For more information on any of the international programmes, please contact the School’s Global Office (InternationalEng@tcd.ie).
5. Programme Overview

5.1 Mission Statement of the School

The School’s main objective is the pursuit of excellence in teaching and research in Engineering with the central aim of producing graduate engineers with a capacity for independent thought in problem solving and creative analysis and design. These graduate engineers will also be capable of communicating clearly and will have a sound understanding of the responsibility of a professional engineer in respect of his/her colleagues, profession, employer and the wider community.

To achieve this, the School endeavours to:

- instil in students an enthusiasm for the theory, art and practice of Engineering;
- teach the engineering sciences and mathematics which underpin the subject areas of Engineering;
- demonstrate the application of these principles to the analysis, synthesis and design of engineering components and systems;
- foster the development of team working skills;
- encourage students to exercise critical judgement and develop the communication skills necessary to make written and oral presentations of their work;
- develop the capacity for life-long learning;
- instil in students a clear knowledge of their responsibilities as professional engineers.

The major elements of the educational approach are:

- a solid grounding in basic mathematics and engineering science;
- a broad syllabus in the early years;
- challenging, high-level teaching in the later years, in both practical and theoretical aspects of engineering.
**5.2 Welcome**

Welcome to the Junior Freshman year of Engineering Science. Your first year is particularly important because it is when you establish the patterns that will be with you throughout your College life. The habits of work and study you establish in the first year – even in the first semester – are most important. If you make a good start, then you will very likely find College productive and enjoyable.

It is important that you do not underestimate the importance of academic application in your JF year as a number of aspects of your performance are particularly important:

1. You should be aware, although a long way off, that your JF examination results are important if you plan to apply for the Unitech or Erasmus programmes in your 4th year. As a result you should apply yourself to the best of you abilities to all modules and not just those, which directly relate to your preferred stream of study.
2. You should be aware of the importance of modules where assessment is based upon Continual Assessment (CA) only.

Note that the School hosts Freshman Liaison Meetings in each semester. This forum offers an opportunity to discuss issues affecting you with your class representative. However, if there is a particular matter which you feel needs urgent attention then you should raise it with your tutor and/or class representative immediately.

Once you have established a good habit of working, you can afford to participate in the more social side of College life. There are many College societies to enjoy, and you shouldn’t confine yourself to faculty and sports societies – there are lots more to choose from.

**5.3 Trinity Education Project**

The Trinity Education Project is a university wide initiative to ‘rearticulate what a Trinity Education should be in the 21st century and to re-emphasise our role as a leader in education’. This will enhance the experience of all Trinity students, including those in the School of Engineering. The ‘high level’ graduate attributes span four dimensions – academic excellence, critical thinking and effective communication, life-long learning, and global citizenship. The academic and administrative structures will be enhanced to provide student learning-centred assessment, learning spaces, curriculum principles and architecture, internships and study abroad options and technology enhanced learning where appropriate.

While many details in this project have still to be determined, the currently proposed architecture for professional degrees (including Engineering) would see 10 ECTS of ‘free electives’ (modules available to all students in the university, and chosen by the students) made available within the first 4 years of the programme, and 20 ECTS of ‘approved modules’ (modules from a prescribed menu outside of the students core requirements, but which are recognised as cognate and coherent). The School of Engineering is excited by the opportunities to use this new project to provide flexible and agile responses to the needs of our graduates. For more detail see [https://www.tcd.ie/academic-services/tep/](https://www.tcd.ie/academic-services/tep/)
5.4 **Junior Freshman Coordinators**

*Overall Junior Freshman Year Coordinator*

Associate Professor Sara Pavia  (pavias@tcd.ie)

*Civil, Structural and Environmental Engineering*

Assistant Professor Bidisha Ghosh  (bghosh@tcd.ie)

*Mechanical and Manufacturing Engineering*

Professor David Taylor  (dtaylor@tcd.ie)

*Electronic and Electrical Engineering*

Associate Professor Naomi Harte  (nharte@tcd.ie)

*Computer Engineering*

Assistant Professor Mike Brady  (brady@cs.tcd.ie)

6. **European Credit Transfer System (ECTS)**

The ECTS is an academic credit transfer and accumulation system representing the student workload required to achieve the specified objectives of a study programme.

The ECTS weighting for a module is a measure of the student input or workload required for that module, based on factors such as the number of contact hours, the number and length of written or verbally presented assessment exercises, class preparation and private study time, laboratory classes, examinations, clinical attendance, professional training placements, and so on as appropriate. There is no intrinsic relationship between the credit volume of a module and its level of difficulty.

In College, 1 ECTS unit is defined as 20-25 hours of student input so a 10-credit module will be designed to require 200-250 hours of student input including class contact time and assessments. The College norm for full-time study over one academic year at undergraduate level is 60 credits.

**ECTS credits are awarded to a student only upon successful completion of the course year.**

Progression from one year to the next is determined by the course regulations. Students who fail a
year of their course will not obtain credit for that year even if they have passed certain component courses. Exceptions to this rule are one-year and part-year visiting students, who are awarded credit for individual modules successfully completed.
7. Programme Regulations

7.1 College Regulations

College regulations are set out in the University Calendar, which may be consulted in any College Library, the Enquiries Office, any academic or administrative office or online. You are expected to be aware of the various regulations - ignorance of the regulations is not a valid reason for failure to comply.

7.2 Collaboration, Plagiarism and Individual Work

Engineering is about co-operation, but also individual effort. The everyday fruits of engineering, such as jet aircraft, suspension bridges, microprocessors or software systems, have been designed and built by teams of hundreds, even thousands, of engineers working together. These engineers exchange ideas and ultimately co-ordinate their efforts to achieve the overall project goal. However, each component of even the largest project is the result of one individual’s engineering skill and imagination. If you want to become a successful engineer, you must develop your own ability to analyse problems. This means that, while it is useful to work as a team initially, you must ultimately produce your own work. For example, for a computing exercise, discuss the task with your classmates, swap ideas on how to solve the problem, but at the end of the day, implement your own solution. The examinations will test your problem-solving ability rather than just your knowledge and the only way to develop your ability for engineering analysis is to complete the laboratory and tutorial exercises yourself.

Plagiarism

In the academic world, the principal currency is ideas. As a consequence, you can see that plagiarism – i.e. passing off other people’s ideas as your own – is tantamount to theft. It is important to be aware the plagiarism can occur knowingly or unknowingly, and the offence is in the action not the intent.

Plagiarism is a serious offence within College and the College’s policy on plagiarism is set out in a central online repository hosted by the Library. This repository contains information on what plagiarism is and how to avoid it, the College Calendar entry on plagiarism and a matrix explaining the different levels of plagiarism outlined in the Calendar entry and the sanctions applied.

Undergraduate and postgraduate new entrants and existing students, are required to complete the online tutorial ‘Ready, Steady, Write’. Linked to this requirement, all cover sheets which students must complete when submitting assessed work, must contain the following declaration:

I have read and I understand the plagiarism provisions in the General Regulations of the University Calendar for the current year.

I have also completed the Online Tutorial on avoiding plagiarism ‘Ready, Steady, Write’.

Plagiarism detection software such as “Turnitin” and Blackboard’s “SafeAssign” may be used to assist in automatic plagiarism detection. Students are encouraged to assess their own work for plagiarism prior to submission using this or other software.
7.3 Attendance, non-satisfactory attendance, course work

For professional reasons lecture and tutorial attendance in all years is compulsory in the School of Engineering. For more on this, See Part II, Academic Progress of the College Calendar.

All students must fulfil the course requirements of the School or Department, as appropriate, with regard to attendance and course work. Students may be deemed non-satisfactory if they are absent from more than a third of their course of study or fail to submit a third of the required course work in any term. **Therefore, a minimum 75% attendance rate at lectures, Laboratories and Tutorials is required.**

At the end of the teaching semester, students who have not satisfied the School or Department requirements 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 annual 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.

7.4 Assessment

The overall result for the year is the weighted average of the individual module results. The weighting is based on the credits associated with each module. Students are obliged to be present and make a serious attempt at all their examinations. You are advised to read the examination regulations on the School Website. Particular attention should be given to the College Regulations concerning medical certificates in the case of missed examinations. Further information is available on the Senior Tutor’s Webpage. It is important to read the exam regulations and college regulations prior to the examination sessions and familiarize yourself with the Senior Tutor website (particularly if you miss an examination).

Examination timetables are published on your personal TCD portal page some weeks before the examinations take place. It is your responsibility to note these carefully – you will be informed that timetables have been published but you must check them continuously, as examination details may change.
8. Prizes

BOOK PRIZES

A prize of a book token to the value of €32 is awarded to candidates in the annual examinations who obtain a standard equivalent to an overall first class honors grade (70% and above). First Class Book Prizes will be available for collection in November of the following academic year from the Academic Registry. These prizes are issued in the form of book tokens and can be redeemed at Hodges Figgis and Co. Ltd.

ANITA NEWELL SCHOLARSHIPS

These prizes were founded in 2007 by a bequest from Ms Anita Newell, a former employee of the School of Engineering. They are awarded annually in the Junior and Senior Freshman years of the Bachelor in Engineering course to the female students achieving the highest and second-highest average of marks at the annual examinations (Foundation Scholarship candidates are eligible for these Scholarships). Value: JF Engineering – first place €3,000; second place €2,000; SF Engineering – first place €6,000; second place €4,000.

MARMADUKE BACKHOUSE PRIZES

These prizes were founded in 1937 by a bequest from Mrs. Alice Backhouse. They are awarded annually after the annual examination of the first year of the B.A.I. degree examination to students with the highest aggregate of marks. The prizes are paid in two equal instalments, the first in July following the award, and the second at the end of Hilary term of the following year. Payment of the second installment is dependent on the Dean of the Faculty being satisfied as to the student’s progress in the second year of the course. Not more than three prizes will be awarded annually. Value, first prize €2,500, second prize €1,500, third prize €500.

VICTOR W. GRAHAM PRIZES

These prizes, founded in 1986 from funds subscribed by friends and pupils to mark Mr. V.W. Graham’s retirement, are awarded to the Junior Freshman engineering student who obtains the highest marks in engineering mathematics (courses 1E1 and 1E2) at the annual class examination and to the Senior Freshman engineering student who obtains the highest mark in engineering mathematics (courses 2E1 and 2E2) at the regular annual class examination. Value, Junior Freshman prize €750, Senior Freshman prize, €1,000.
E.R. STUART PRIZE IN ENGINEERING

This prize, established in 1982 from funds subscribed by colleagues to mark Mr. E.R. Stuart’s retirement, is awarded annually to the Junior Freshman engineering student who is judged by the School of Chemistry to have given the best performance in the Junior Freshman engineering chemistry course of that year. Value, €200.
9. Junior Freshman Modules

9.1 Key Dates

SEMESTER 1 (MICHAELMAS TEACHING TERM)

12 WEEKS

Monday, 10th September, 2018 to Friday, 30th November, 2018

SEMESTER 2 (HILARY TEACHING TERM)

12 WEEKS

Monday, 21st January, 2019 to Friday, 12th April, 2019

REVISION/EXAMINATIONS (TRINITY TERM)

Schedules for examinations in both semesters, including date, time, and venue, will be made available via your MyTCD portal

For further details, please see Academic Year Structure document in Section 10 and the School of Engineering website.

9.2 Module Information

Detailed information on all JF modules is available on the School of Engineering website.

1E1 Engineering Mathematics I

Co-ordinator: Assistant Professor Alberto Ramos (alberto.ramos@cern.ch)

5 Credits

Semester 1 (See timetable)

Assessment: End of Year Examination: 80%

Continuous Assessment: 20%
**1E2  Engineering Mathematics II**

Co-ordinator: Professor Richard Timoney  
(rtimoney@tcd.ie)

5 Credits

Semester 2 (See timetable)

Assessment:  
End of Year Examination: 80%

Continuous Assessment: 20%

**1E3  Computer Engineering I**

Co-ordinator: Assistant Professor Lucy Hederman  
(lucy.hederman@scss.tcd.ie)

5 Credits

Semester 2 (See timetable)

Assessment:  
End of Year Examination: 80%

Continuous Assessment: 20%
1E4  Physics
Co-ordinator: Professor Stefan Hutzler (shutzler@tcd.ie)
Professor Hongzhou Zhang (hongzhou.zhang@tcd.ie)
Laboratory coordinators:
Professor Jose Groh (jose.groh@tcd.ie)
Professor David McCloskey (mccloskd@tcd.ie)
5 Credits
Semester 2 (See timetable)
Assessment: Final Examination: 60%
Continuous Assessment: 40%

1E5  Chemistry
Co-ordinator: Assistant Professor Richard Hobbs (hobbsr@tcd.ie)
Assistant Professor Niall McEvoy (mcevoyni@tcd.ie)
5 Credits
Semester 1 (See timetable)
Assessment: Final Examination: 80%
Practical Work: 20%

1E6  Electrical Engineering
Co-ordinator: Associate Professor Naomi Harte (nharte@tcd.ie)
5 Credits
Semester 2 (See timetable)
Assessment: Final Examination: 80%
Continuous Assessment: 20%

1E7  Mechanics
Co-ordinator: Associate Professor Dermot O’Dwyer (dwodwyer@tcd.ie)
5 Credits
Semester 2 (See timetable)
Assessment: Final Examination: 80%
Continuous Assessment: 20%
1E8  Introduction to Professional Engineering

Co-ordinator: Professor David Taylor  
  (dtaylor@tcd.ie)

Associate Professor Bruce Misstear  
  (bmisster@tcd.ie)

Professor Khurshid Ahmad  
  (khurshid.ahmad@scss.tcd.ie)

Professor Anil Kokaram  
  (anil.kokaram@tcd.ie)

5 Credits

Semester 1 (See timetable)

Assessment:  Project:  100%

As 1E8 is assessed entirely on project work taken during the year, students who do not pass this module and cannot compensate in line with the examination regulations, will be required to repeat the year in full.
1E9  Engineering Design I: Graphics and Computer Aided Engineering

Co-ordinator: Assistant Professor Bidisha Ghosh/guest lecturers  (bghosh@tcd.ie)

5 Credits

Semester 2 (See timetable)

Assessment:  
End of Year Examination: 60%
Continuous assessment 40%

Students are required to achieve a **minimum 40% in the examination** to have a qualifying mark to pass this module.

You will be advised of your lab schedule for 1E9 in lectures.

1E10  Engineering Design II: Project

Co-ordinator: Associate Professor Gareth Bennett  (gareth.bennett@tcd.ie)

10 Credits

Semester 1 (See timetable)

Assessment:  
5 individual assignments
2 group based assignments
2 individual online multiple choice assessments

NB: as 1E10 is assessed entirely on project work taken during the year, students who do not pass this module and cannot compensate in line with the examination regulations will be required to repeat the year in full.

1E11  Experimental Methods

Co-ordinator: Assistant Professor John Kennedy  (j Kenned5@tcd.ie)

Associate Professor Martin Burke  (martin.burke@tcd.ie)
Assistant Professor Brian Caulfield  (brian.caulfield@tcd.ie)

5 Credits

Semester 1 (See timetable)

Assessment:  
End of Year Examination: 75%
Online & Laboratory Experiment Reports 25%
NOTE:

1. Laboratories not completed during the teaching semester cannot be repeated for supplemental examinations. Overall supplemental marks for all modules are calculated entirely on the basis of the supplemental examination results (with the exception of some modules delivered by other Schools operating under their own rules).

2. Modules 1E8 and 1E10 are assessed entirely on project work taken during the year.
9.3 Practical Work (laboratories and projects)

Laboratory/project sessions are part of 1E3, 1E4, 1E5, 1E6, 1E7, 1E8, 1E9, 1E10 and 1E11 and contribute towards the overall end-of-year grade in each module. Students are required to complete the practical work during the semester in which the associated module is delivered. The practical work associated with each module is listed in the individual module sheets.

Assessment of Laboratories

The learning objectives of these laboratories and projects are dominated by problem solving, project management, time management, teamwork and communication skills which, by their nature, are demonstrated over the course of the academic year. As a result of this, there will be NO opportunity to repeat the practical work during the supplemental examination session in the autumn. Attendance and progress will be monitored and warnings given of unsatisfactory performance throughout the year. There will be a limited number of make-up sessions provided to cater for legitimate and certified absences from any of the laboratories.

The procedures for the practical work associated with 1E3, 1E4, 1E5, 1E8, 1E9 and 1E10 will be provided by the module coordinator. The procedures for the Engineering Laboratories (1E6, 1E7 and 1E11) are as follows:

Engineering Laboratories (1E6, 1E7 and 1E11)

1. You must purchase a bound laboratory notebook and bring it to each laboratory.

2. Students record data, procedures, observations etc. in the notebook.

3. The notebook is signed by the demonstrator at the end. It is your responsibility to ensure that your logbook is signed by the demonstrator at the conclusion of each laboratory session. The signed logbook is evidence that you have attended laboratory sessions.

4. The demonstrator takes attendance (students sign the attendance sheet).

5. Completed reports must be handed in to the Executive Officer of the Department running the laboratory before 17:00, one week after the exercise has been done. Students sign the Department logbook when they hand it in. This is evidence that you have submitted a report.

The timetable for the laboratory exercises is in Sections 11. You will be assigned to a specific group during the first week of term – details will be posted on the Engineering School website and notice board in the Museum Building. Details of these exercises, together with guidelines on how to write a laboratory report, will be given to you during the first week of term.

Reports handed in on time are marked out of 10. Late submissions are marked out of 5. Attendance at, and proper completion of, laboratory work is compulsory. Students who fail to conform to this rule
will be marked “unsatisfactory”. If you are unable to attend a laboratory session due to illness, you must present a medical certificate to the Laboratory Co-Ordinator. Arrangements for completion of the exercise on another day will be made, and the report will be submitted in the usual way.
**1E4 Physics Laboratories**
These experiments run on Monday and Tuesday afternoons from 14:00 to 17:00 in the Physics Junior Freshman Laboratory, 1st floor, Sami Nasr Institute of Advanced Materials (SNIAM). The schedule for these laboratories is in Section 12.

**1E5 Chemistry Laboratories**
These experiments run on Monday afternoons from 14:00 – 17:00 and on Wednesday mornings from 09:00 – 12:00 PCTL, Physical Chemistry Teaching Laboratory, Second Floor Sami Nasr Building. The schedule for these laboratories is in Section 11.
# 10. Academic Year Structure

![ACADEMIC YEAR CALENDAR 2018/19](image)

## 10.1 Academic Year Structure

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Academic Year Calendar</th>
<th>Term / Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>27-Jul-18</td>
<td>Marking/Results</td>
<td>Michaelmas Term begins/Semester 1 begins</td>
</tr>
<tr>
<td>2</td>
<td>03-Sep-18</td>
<td>Orientation (undergraduate)/Freshers' Week</td>
<td>Michaelmas teaching term begins</td>
</tr>
<tr>
<td>3</td>
<td>10-Sep-18</td>
<td>Teaching and Learning</td>
<td>Michaelmas teaching term begins</td>
</tr>
<tr>
<td>4</td>
<td>17-Sep-18</td>
<td>Teaching and Learning</td>
<td>Michaelmas teaching term begins</td>
</tr>
<tr>
<td>5</td>
<td>24-Sep-18</td>
<td>Teaching and Learning</td>
<td>Michaelmas teaching term begins</td>
</tr>
<tr>
<td>6</td>
<td>01-Oct-18</td>
<td>Teaching and Learning</td>
<td>Michaelmas teaching term begins</td>
</tr>
<tr>
<td>7</td>
<td>08-Oct-18</td>
<td>Teaching and Learning</td>
<td>Michaelmas teaching term begins</td>
</tr>
<tr>
<td>8</td>
<td>16-Oct-18</td>
<td>Teaching and Learning</td>
<td>Michaelmas teaching term begins</td>
</tr>
<tr>
<td>9</td>
<td>22-Oct-18</td>
<td>Study/Review</td>
<td>Michaelmas teaching term begins</td>
</tr>
<tr>
<td>10</td>
<td>29-Oct-18</td>
<td>Teaching and Learning</td>
<td>Michaelmas teaching term begins</td>
</tr>
<tr>
<td>11</td>
<td>05-Nov-18</td>
<td>Teaching and Learning</td>
<td>Michaelmas teaching term begins</td>
</tr>
<tr>
<td>12</td>
<td>12-Nov-18</td>
<td>Teaching and Learning</td>
<td>Michaelmas teaching term begins</td>
</tr>
<tr>
<td>13</td>
<td>19-Nov-18</td>
<td>Teaching and Learning</td>
<td>Michaelmas teaching term begins</td>
</tr>
<tr>
<td>14</td>
<td>26-Nov-18</td>
<td>Teaching and Learning</td>
<td>Michaelmas teaching term begins</td>
</tr>
<tr>
<td>15</td>
<td>03-Dec-18</td>
<td>Revision</td>
<td>Michaelmas teaching term begins</td>
</tr>
<tr>
<td>16</td>
<td>10-Dec-18</td>
<td>Assessment</td>
<td>Michaelmas term ends Sunday 15 December 2018/ Semester 1 ends</td>
</tr>
<tr>
<td>17</td>
<td>17-Dec-18</td>
<td>Christmas Period - College closed</td>
<td>Michaelmas term ends Sunday 15 December 2018/ Semester 1 ends</td>
</tr>
<tr>
<td>18</td>
<td>24-Dec-18</td>
<td>24 December 2018 to 1 January 2019 inclusive</td>
<td>Michaelmas term ends Sunday 15 December 2018/ Semester 1 ends</td>
</tr>
<tr>
<td>19</td>
<td>31-Dec-18</td>
<td>24 December 2018 to 1 January 2019 inclusive</td>
<td>Michaelmas term ends Sunday 15 December 2018/ Semester 1 ends</td>
</tr>
<tr>
<td>20</td>
<td>07-Jan-19</td>
<td>Foundation Scholarship Examinations*</td>
<td>Hilary Term begins/Semester 2 begins</td>
</tr>
<tr>
<td>21</td>
<td>14-Jan-19</td>
<td>Marking/Results</td>
<td>Hilary teaching term begins</td>
</tr>
<tr>
<td>22</td>
<td>21-Jan-19</td>
<td>Teaching and Learning</td>
<td>Hilary teaching term begins</td>
</tr>
<tr>
<td>23</td>
<td>28-Jan-19</td>
<td>Teaching and Learning</td>
<td>Hilary teaching term begins</td>
</tr>
<tr>
<td>24</td>
<td>04-Feb-19</td>
<td>Teaching and Learning</td>
<td>Hilary teaching term begins</td>
</tr>
<tr>
<td>25</td>
<td>11-Feb-19</td>
<td>Teaching and Learning</td>
<td>Hilary teaching term begins</td>
</tr>
<tr>
<td>26</td>
<td>18-Feb-19</td>
<td>Teaching and Learning</td>
<td>Hilary teaching term begins</td>
</tr>
<tr>
<td>27</td>
<td>25-Feb-19</td>
<td>Teaching and Learning</td>
<td>Hilary teaching term begins</td>
</tr>
<tr>
<td>28</td>
<td>04-Mar-19</td>
<td>Study/Review</td>
<td>Trinity Term begins</td>
</tr>
<tr>
<td>29</td>
<td>11-Mar-19</td>
<td>Teaching and Learning</td>
<td>Trinity Term begins</td>
</tr>
<tr>
<td>30</td>
<td>18-Mar-19</td>
<td>Teaching and Learning (Monday, Public Holiday)</td>
<td>Trinity Term begins</td>
</tr>
<tr>
<td>31</td>
<td>25-Mar-19</td>
<td>Teaching and Learning</td>
<td>Trinity Term begins</td>
</tr>
<tr>
<td>32</td>
<td>01-Apr-19</td>
<td>Teaching and Learning</td>
<td>Trinity Term begins</td>
</tr>
<tr>
<td>33</td>
<td>08-Apr-19</td>
<td>Teaching and Learning</td>
<td>Trinity Term begins</td>
</tr>
<tr>
<td>34</td>
<td>15-Apr-19</td>
<td>Revision (Friday, Good Friday)</td>
<td>Trinity Term begins</td>
</tr>
<tr>
<td>35</td>
<td>22-Apr-19</td>
<td>Assessment (Monday, Easter Monday)</td>
<td>Trinity Term begins</td>
</tr>
<tr>
<td>36</td>
<td>29-Apr-19</td>
<td>Trinity Week</td>
<td>Trinity Term begins</td>
</tr>
<tr>
<td>37</td>
<td>06-May-19</td>
<td>Marking/Results (Monday, Public Holiday)</td>
<td>Trinity Term begins</td>
</tr>
<tr>
<td>38</td>
<td>13-May-19</td>
<td>Marking/Results</td>
<td>Trinity Term begins</td>
</tr>
<tr>
<td>39</td>
<td>20-May-19</td>
<td>Marking/Results</td>
<td>Trinity Term begins</td>
</tr>
<tr>
<td>40</td>
<td>27-May-19</td>
<td>Summer Research</td>
<td>Trinity Term begins</td>
</tr>
<tr>
<td>41</td>
<td>03-Jun-19</td>
<td>Summer Research (Monday, Public Holiday)</td>
<td>Trinity Term begins</td>
</tr>
<tr>
<td>42</td>
<td>10-Jun-19</td>
<td>Summer Research</td>
<td>Trinity Term begins</td>
</tr>
<tr>
<td>43</td>
<td>17-Jun-19</td>
<td>Summer Research</td>
<td>Trinity Term begins</td>
</tr>
<tr>
<td>44</td>
<td>24-Jun-19</td>
<td>Summer Research</td>
<td>Trinity Term begins</td>
</tr>
<tr>
<td>45</td>
<td>01-Jul-19</td>
<td>Summer Research</td>
<td>Trinity Term begins</td>
</tr>
<tr>
<td>46</td>
<td>08-Jul-19</td>
<td>Summer Research</td>
<td>Trinity Term begins</td>
</tr>
<tr>
<td>47</td>
<td>15-Jul-19</td>
<td>Summer Research</td>
<td>Trinity Term begins</td>
</tr>
<tr>
<td>48</td>
<td>22-Jul-19</td>
<td>Summer Research</td>
<td>Trinity Term begins</td>
</tr>
<tr>
<td>49</td>
<td>29-Jul-19</td>
<td>Summer Research</td>
<td>Trinity Term begins</td>
</tr>
<tr>
<td>50</td>
<td>05-Aug-19</td>
<td>Summer Research (Monday, Public Holiday)</td>
<td>Trinity Term begins</td>
</tr>
<tr>
<td>51</td>
<td>12-Aug-19</td>
<td>Summer Research</td>
<td>Trinity Term begins</td>
</tr>
<tr>
<td>52</td>
<td>19-Aug-19</td>
<td>Summer Research</td>
<td>Trinity Term begins</td>
</tr>
</tbody>
</table>

*Note: It may be necessary to hold some exams in the preceding week.
11. Semester 1 and 2 Timetables, Laboratory Schedules and Groups

See below links for timetables, laboratory schedules and groups.

Semester 1 timetable and laboratory schedule (Michaelmas Term - September to December) are available on the School website.

Semester 2 timetable and laboratory schedule (Hilary Term - January to April period) will be available on the School website from January, 2018.

To identify which laboratory group you are in, please select the JF group link first. Then go to the JF lab schedule and look only at the row for the group you are in ie. if you are in group A1, only look at the A1 row, as this is your particular laboratory group schedule.

If you are not in a laboratory group, please contact Katherine Walsh.

No changes to laboratory groups will be made.

Further Information:


https://www.tcd.ie/Engineering/undergraduate/pdf/JFgroups.pdf

12. General Guidelines

12.1 Overall Grade

Examination Regulations are available on the School of Engineering website for your information. It is advisable for students to read and understand these regulations at the beginning of the academic year.

12.2 Publication of Examination Results

Examination results are published on the Engineering School Notice board in the Museum Building and on the relevant School and College websites. Results are published anonymously on the notice board in order of the candidates’ student numbers and names are not listed. Anyone seeking a candidate’s result must have the relevant student number. Tutors can also be contacted regarding examination results.

The annual examination results will provisionally be published in May 2019 on the my.tcd.ie web portal.

12.3 Re-Check/Re-Marking of Examination Scripts

Extracts from http://www.tcd.ie/calendar/undergraduate-studies/complete-part-II.pdf

“51 Access to scripts and discussion of performance

(i) All students have a right to discuss their examination and assessment performance with the appropriate members of staff as arranged for by the director of teaching and learning (undergraduate) or the head of department as appropriate. This right is basic to the educational process.

(ii) Students are entitled to view their scripts when discussing their examinations and assessment performance.

(iii) Students’ examination performance cannot be discussed with them until after the publication of the examination results.

(iv) To obtain access to the breakdown of results, a student or his/her tutor should make a request to the director of teaching and learning (undergraduate), course co-ordinator or appropriate member of staff.

(v) Examination scripts are retained by schools and departments for thirteen months from the date of the meeting of the court of examiners which moderates the marks in question and may not be available for consultation after this time period.”
“52 Re-check/re-mark of examination scripts

(i) Having received information about their results and having discussed these and their performance with the director of teaching and learning (undergraduate) or the head of department and/or the appropriate staff, students may ask that their results be reconsidered if they have reason to believe:

(a) that the grade is incorrect because of an error in calculation of results;

(b) that the examination paper specific to the student’s course contained questions on subjects which were not part of the course prescribed for the examination; or

(c) that bias was shown by an examiner in marking the script.

(ii) In the case of (a) above, the request should be made through the student’s tutor to the director of teaching and learning (undergraduate) or course co-ordinator as appropriate.

(iii) In the case of (b) and/or (c) above, the request should be made through the student’s tutor to the Senior Lecturer. In submitting such a case for reconsideration of results, students should state under which of (b) and/or (c) the request is being made (Details of the procedures relating to the re-check/re-mark of examination scripts are available on the College website at https://www.tcd.ie/teaching-learning/assets/pdf/academicpolicies/AppealsPolicy.pdf)

(iv) Once an examination result has been published it cannot be amended without the permission of the Senior Lecturer.

(v) Requests for re-check or re-mark should be made as soon as possible after discussion of results and performance and no later than twelve months from the date of the meeting of the court of examiners which moderated the marks in question.

(vi) Any student who makes a request for re-check or re-mark that could have implications for their degree result is advised not to proceed with degree conferral until the outcome of the request has been confirmed”.

12.4 Appeals Process

Below are extracts from the Academic Calendar regarding the examination appeals process. It is important that students are fully up to date on this process, particularly prior to the examination period.

Courts of First Appeal

53 A student may appeal a decision of the court of examiners relating to academic progress to a Court of First Appeal. Appeals should be made in writing by a student’s tutor or, if the tutor is unwilling or unable to act, by the Senior Tutor or his/her nominee who shall be another tutor. Students may request a representative of the Students’ Union to represent them as an alternative to their tutor or the Senior Tutor. Tutors or Students’ Union representatives who are filing an appeal must use the procedural form,
must indicate the precise grounds upon which the appeal is being made (see Academic Appeals Committee §54 below for applicable grounds) and what the appeal is attempting to achieve on the student’s behalf, e.g. permission to repeat the year, special examination etc. The attention of those bringing an appeal is directed to the assistance offered by the school or course administrators and staff in the Academic Registry in helping them to complete their records, provide copies of medical certificates and other appropriate documents. The Court of First Appeal shall not hear requests for re-checking/re-marking of examinations and assessments which should be processed according to the regulations as set out in §52 above. The recommendations of the Court of First Appeal are forwarded to the Senior Lecturer who may approve or reject or vary any such recommendations. As a consequence recommendations of a Court of First Appeal are not binding and shall not have a formal effect unless and until they have been considered and approved by the Senior Lecturer. In particular, pursuant to §37, the Senior Lecturer will approve a recommendation that a student be permitted to sit a special examination, outside of the annual and supplemental sessions, as set out in the Calendar PART I - ALMANACK, only in exceptional circumstances. (This power is exercised by the Senior Lecturer by delegation from the University Council, and the principles of delegation set out in Part 3 of the Introduction Chapter of the 2010 Statutes shall apply.) A student may appeal such decisions of the Senior Lecturer, whether approved or rejected or varied, to the Academic Appeals Committee.

Academic Appeals Committee

54 The Academic Appeals Committee meets to consider appeals arising out of examinations or other academic circumstances where a student case (i) is not adequately covered by the ordinary regulations of the College, or (ii) is based on a claim that the regulations of the College were not properly applied in the applicant’s case, or (iii) represents an ad misericordiam appeal. An appeal other than an ad misericordiam appeal, cannot be made against the normal application of College academic regulations approved by the University Council. Decisions of the Academic Appeals Committee are forwarded to the University Council. Pursuant to §37, the Academic Appeals Committee will decide that a student be permitted to sit a special examination outside of the University annual and supplemental examination sessions, as set out in the Calendar PART I - ALMANACK, only in exceptional circumstances. (This power is exercised by the Academic Appeals Committee by delegation from the University Council, and the principles of delegation set out in Part 3 of the Introduction Chapter of the 2010 Statutes shall apply.) The Academic Appeals Committee will consider appeals concerning events occurring more than eighteen months previously only in the most exceptional circumstances. Appellants must have exhausted the appropriate appeals mechanism in the first instance through the relevant Court of First Appeal prior to coming before the Academic Appeals Committee. Appeals should be made in writing by a student’s tutor or, if the tutor is unwilling or unable to act, by the Senior Tutor or his/her nominee who shall be another tutor. Students may request a representative of the Students’ Union to represent them as an alternative to their tutor or the Senior Tutor. Tutors or Students’ Union representatives who are filing an appeal must use the procedural form, must indicate the precise grounds upon which the appeal is being made and what the appeal is attempting to achieve on the student’s behalf, e.g. permission to repeat the year, special examination etc. They should also ensure that appropriate and full information and evidence are included. This information must include all results achieved by the student to-date in mark format, and must indicate if course 5Details of procedures relating to Courts of First Appeal are available on the College website at https://www.tcd.ie/undergraduate-studies/academic-progress/appeals.php and from relevant course offices. 50 Calendar 2016-17 work has been completed. If possible, an attendance record should be provided. The attention of those bringing an appeal is directed to the assistance offered by the school or course administrators and staff in the Academic
Registry in helping them to complete their records, provide copies of medical certificates and other appropriate documents. Appeal forms not completed properly will not be considered by the committee. The Senior Tutor acts as secretary to the Academic Appeals Committee and attends the committee as a non-voting member. The Senior Lecturer attends for the presentation of the case and may provide comment if required. In cases concerning clinical placements (and in particular where the student is considered to be an employee of the institution providing the placement) the committee will be joined by an appropriate professional, nominated by the chair of the Academic Appeals Committee, who shall be drawn from the discipline of the student. Any student who has an appeal underway that could have implications for their degree result is advised not to proceed with degree conferral until the outcome of the appeal has been confirmed.

12.5 First Year in University

Everybody says college is different from school. Of course, in lots of obvious ways it is different, and no doubt you’ll enjoy finding out just what those differences are. In not-so-obvious ways though, Trinity College is very different from school, and in this section we concentrate on how the academic side of university life is different and what you need to do about it.

- You are not at school. We want you to do more than simply reproduce what you are told in a lecture. You need to get a good command of the material. In engineering-related disciplines, the best way to do this – and the best way to know that you have really learned something – is to apply your new knowledge to solving new problems; not just the examples done in class, but to similar problems you’ll find in textbooks or elsewhere (later on, as a professional engineer, you will have to apply your knowledge to problems you have never seen before - now is the time to start);
- Expect the material to be covered much faster than at school. Lecture time is at a premium, so it must be used efficiently. You cannot be taught everything in lectures and tutorials. It is your responsibility to learn the material. Most of this learning will take place outside the classroom, and you must be willing to put in the study time necessary to ensure that this learning takes place. If you do fall behind in a course – that is, if you can’t continue to understand the lectures as they are given – then you really need to make the effort to catch up right away. Don’t be tempted to think that you can somehow catch up at the end of the year – this is almost impossible;
- A lecturer’s job is primarily to provide you with a framework, with some of the particulars, to guide you in your learning of the concepts and methods that comprise the material of the course. It is not to ‘programme’ you with isolated facts and problem types or to monitor your progress. Your job is to fill out that framework with a thorough understanding of the material;
- You are expected to study textbooks and other material for comprehension, all of which are readily available in the college libraries. This material gives a detailed account of the subjects in each module. It also contains many examples of problems worked out, and these should be used to supplement those you see in the lectures. The textbook is not a novel; you cannot simply skim through it from start to finish. Reading the textbook must often be slow-going and careful; frequently you’ll need to use pencil and paper to work through the material, but you can work at your own pace;
As for when to read the textbook, it’s a good idea to read the appropriate section ahead of the lecture. This way, although you may not understand it fully, you’ll be prepared for the lecture, and you’ll have a good idea what areas to ask questions about. If you haven’t looked at the book beforehand, pick up what you can from the lecture (absorb the general idea and/or take thorough notes) and count on sorting it out later while studying the book and transcribing your notes;

Laboratories and tutorials are far more important than the marks you might get for them, because they give you a chance to develop your problem solving skills and your understanding of the subject. They are also a good ‘reality check’ for you to see just how much you really do understand. Use them wisely;

In examinations, the examiners set out to probe your mastery of the material in the modules. You will have to solve problems you have never seen before. (To be sure, you will have encountered similar problems, but they won’t be the same.) Hence, preparing for examinations simply by remembering lots of answers without understanding them simply won’t work; examinations test your understanding of the material as well.

(This section is adapted from “Teaching at the University Level” by Steven Zucker in Notices of the AMS August 1996.)

13. Information on Academic Resources

13.1 Location of Lecture Rooms and Laboratories

The School of Engineering is accommodated in a number of buildings located in various parts of the College campus - see the map at the back of this handbook. Most first year engineering lectures are in the Museum Building and the Hamilton Building. Drawing exercises take place in the Drawing Office on the top floor of the Museum Building; Computer Science (1E3) practical sessions take place in the East End Macintosh Laboratory; Computer Aided Engineering exercises are carried out in the ICT Computer Laboratories and the Engineering practical sessions are carried out in the various laboratories and workshops belonging to the School.

13.2 The Libraries

There are many libraries in College and the main library for the School of Engineering is located in the Hamilton Building at the East End of College. The library houses all of the lending and reference materials that will be recommended to students. The library is open 9.00 a.m. – 10.00 p.m. Monday to Friday and 9.30 a.m. – 1.00 p.m. on Saturday throughout the academic year – the Engineering Librarian is David MacNaughton (david.macnaughton@tcd.ie). Should you have difficulty finding books, or need assistance of any sort, please ask library staff for help.
13.3 **Student Information System (SITS) – Access VIA my.tcd.ie**

All standard communications from College is sent to you via your online portal which is accessible at [my.tcd.ie](http://my.tcd.ie). This portal will give you access to an ‘inray’ of your messages. You will also be able to view your timetables online, both for your teaching and for your examinations, as well as your examination results. All fee invoices/payments, student levies and commencement fees will be issued online and all payments will be carried out online. You will be able to view your personal details in the system as well as access College letters confirming registration.
14. College Map
15. Student Supports

15.1 Academic Concerns: Sources of Assistance

There are a number of sources of assistance available to engineering students should you have any academic concerns – see list below. It is important to address these concerns immediately – the sooner the concern is raised, the sooner it will be resolved.

- Other students in the class;
- Module lecturer;
- Engineering class representatives;
- your personal tutor (or any other tutor if you cannot find yours), or the Senior Tutor;
- Head of Department;
- Head of School (Professor Henry Rice hrice@tcd.ie) or Director of Teaching and Learning (Undergraduate), Associate Professor Alan O’Connor (oconnoaj@tcd.ie);
- Students’ Union Education Officer (education@tcdsu.org).

15.2 Student Learning Development

Student Learning Development is here to help you develop and master the academic skills to succeed at Trinity. The supports available include:

- Free workshops throughout the year on a variety of topics for students from all departments.
- A Blackboard module featuring a range of resources, including podcasts and interactive workshops that provide academic support to students. Topics include:
  - Time management
  - Presentation skills (incl poster presentations)
  - Procrastination and Concentration
  - Effective study skills
  - Writing skills
  - Exam skills
  - Individual consultations – meet with a learning advisor to discuss your study issues

For more information please visit http://student-learning.tcd.ie.

Other supports for learning in College include:

- The Maths Help Room, which provides informal help from Trinity students. It is located in the Maths Seminar Room, 2nd Floor, 18 Westland Row and is open on Monday-Friday, from 1-2pm.
- The Programming Support Centre is available to all computer science and engineering students taking programming courses. See www.scss.tcd.ie/misc/psc.
- Peer Learning is available in several of the modern language departments. It involves working with other students to get the most from your course to improve performance. E-mail us for further information: student.learning@tcd.ie.
15.3 Careers Advisory Service

What do you want to do? How will you get there? We are here to support you in answering these and other questions about your career.

Get Involved: Remember that your course of study, extra-curricular activities, voluntary and part-time work all provide opportunities for developing skills and gaining an insight into your career preferences. In your Senior Fresh year, look out for short-term internship opportunities.

MyCareer: Log in to MyCareer to keep abreast of jobs, study and careers events of interest to you.

An online service that you can use to:
- Apply for opportunities which match your preferences - vacancies including research options
- Search opportunities- postgraduate courses and funding
- View and book onto employer and CAS events
- Submit your career queries to the CAS team
- Book an appointment with your Careers Consultant

Simply login to MyCareer using your Trinity username and password and personalise your profile.

Careers Advisory Service, Trinity College Dublin, 7-9 South Leinster Street, Dublin 2, (01) 896-1705/1721, or submit a career query through MyCareer.

15.4 Personal Concerns: Sources of Assistance


- S2S – Student 2 Student
  Keep an eye out for the red hoodies!
  You’ll meet your S2S Mentors during Freshers’ Week and they will make sure that you know other people in your course before your classes even start. They’ll also show you around the campus and how to use the library. Your Mentors will keep in regular touch with you throughout your first year and invite you to events on and off campus, and will also give you useful information about your course and what to look out for. We also have specific Mentors for mature and visiting students.

S2S Mentors are students, just like you, they’ve been through first year and know exactly what it feels like, so you never have to worry about asking them a question or talking to them about anything that’s worrying you.
S2S also offers Peer Support; a team of students who are specially trained to listen confidentially to another student, or even just to meet one-to-one for a coffee and a friendly chat. No problem is ever too big or too small! Any student in Trinity can contact a Peer Supporter by emailing student2student@tcd.ie or by requesting one online at student2student.tcd.ie.

- Your tutor (or any other tutor if you cannot find your own), or the Senior Tutor;
- Student Counselling Service, 3rd Floor, 7 – 9 South Leinster Street, College, email: student-counselling@tcd.ie; tel: (01) 896 1407
- Niteline (Thursdays to Sundays during term only, 21:00 – 02:30am) at 1800-793-793
- Student Health Service, House 47
  Medical Director - Dr David McGrath (01) 896-1591
  Assistant Medical Director/Psychiatrist - Dr Niamh Farrelly (01) 896-1591
  Doctors:
  Dr Niamh Murphy (01) 896-1591/1556
  Dr Aisling Waters (01) 896-1591/1556
  Dr Mary Davin-Power (01) 896-1591/1556
  Dr Lisa Lawless (01) 896-1591/1556
  Dr Joanne Agnew (01) 896-1591/1556
  Physiotherapist: Ms Karita Cullen (01) 896-1591/1556
  Health Promotion Officer: Ms Martina Mullin (01) 896-2566

- Welfare Officer, Students’ Union, House 6, College; email: welfare@tcdsu.org;
- Chaplains, House 27, College:
  Catholic: Fr Peter Sexton (sextonpe@tcd.ie) (01) 896-1260
  Church of Ireland: Revd Steve Brunn (brunns@tcd.ie) (01) 896-1402
  Revd Dr Julian Hamilton (julian.hamilton@tcd.ie) (01) 896-1901
  Email: chaplain@tcd.ie
  Website: www.tcd.ie/chaplaincy

- Any student, member of staff or other person with whom you feel able to discuss your concerns.
- Disability Service – Room 2054, Arts Building. Tel: 8963111. Email: askds@tcd.ie. Web: http://www.tcd.ie/disability/ Office is open Mon-Thursday: 09:00 – 17.30 and 09:00 - 17.00 on Friday
NOTE: IF YOU HAVE A CONCERN OF ANY SORT,

PLEASE TALK TO SOMEONE STRAIGHT AWAY

15.5 Tutors

The tutors responsible for engineering students are available on the Senior Tutor’s website.