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A Note on this Handbook

This handbook applies to all students taking the Senior Freshman Year of the Engineering degree course. It provides a guide to what is expected of you on this programme, and the academic and personal support available to you. Please 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 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

We would like to welcome you all to the Senior Freshman (SF) year of the B.A.I./M.A.I.. The basic goal of this year remains one of providing all B.A.I./M.A.I. students with a solid foundation in the principles of biomedical, civil, computer, electronic and mechanical engineering with a strong emphasis on those elements that are common across the disciplines.

As you have now learned, the most important feature of courses in engineering is the focus on problem-solving. This is because much of engineering design and analysis work in the real world relates to the creation of new systems which have not previously been analysed so your capacity to undertake this relies on the ability to address new problems. Whilst we can teach the principles and methods of problem-solving and give illustrative examples, if you are to be successful in learning to solve engineering problems, your personal study must include a significant amount of time spent practicing and developing this skill. As with many other aspects of life, problem-solving only comes with experience. In particular, the skill of problem-solving is not amenable to last-minute cramming! Consequently, our positive recommendation to you is to maintain a consistent and reasonable level of work throughout the academic year paying close attention to laboratory and tutorial assignments.

During your SF year, there are a number of matters upon which you will need to reflect. You need to choose which type of engineering you would like to pursue. Towards the end of the SF year, you will be asked to choose one of the six specialist streams offered in the Sophister years:

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

To assist you in making this important choice in an informed way, each of the engineering departments will give presentations to the class on each discipline before you are required to make your choice. In the meantime, we suggest you do some research yourself so that you select the type of engineering that best suits your skills and talents but, above all, one that focuses on topics/subjects in which you are interested.

Towards the end of your SF year, you will also need to consider if you ultimately wish to take a B.A.I. degree or go on to the M.A.I. level. To gain admission to the M.A.I., your performance in the Junior Sophister and Senior Sophister years will be taken into account.

As in the case of all your years at College, please be aware that there is a wide variety of support services available. If you are experiencing concerns of any sort - personal, financial, health, or academic - there are a number of sources of help available as listed in Section 9 of this booklet. Do not hesitate to call on these sources should the need arise.
We wish you all a successful and enjoyable SF year in College.

Professor Henry Rice  
Head of School  
School of Engineering

Professor Alan O’Connor  
Director of Undergraduate Teaching and Learning  
School of Engineering

2.1 Welcome

In order to build on the engineering science base established in your Junior Freshman year, a Senior Freshman course structure has been developed specifically with the following aims and objectives in mind;

- to provide the student with a sound foundation in the concepts, principles and methodologies of the various engineering sciences – civil, computer, electronic, biomedical and mechanical;
- to give the student an appreciation for the unifying engineering science framework;
- to progress and develop the associated mathematical knowledge and skills;
- to develop in the student the ability to formulate, analyse and synthesise solutions to a broad range of basic engineering problems;
- to introduce the student to the skills of carrying out engineering design projects and communication on their progress.

These objectives are met by providing, again, core subjects in Mathematics (2E1 and 2E2) and Computer Engineering II (2E3 and 2E11), and a range of modules which are closely aligned to the three engineering departments, namely 2E4 Solids and Structures (Civil), 2E5 Thermo-fluids (Mechanical) and 2E6 Electronics. A basic knowledge of the fundamental principles in each of these disciplines will, we believe, serve you well in your future careers. The remaining two subjects, 2E7 Engineering and the Environment and 2E8 Materials, serve to enhance the repertoire of key topics of which all engineers should have some awareness.

The lecture programme attached is complemented by a series of tutorials in each subject as well as two Engineering Design modules; 2E9 and 2E10 which will afford students the opportunity to carry out two significant design projects. These two projects will give you insight into design techniques and experience in practical problem solving.

There will be examination periods held at the end of each semester. Sample examination papers will be issued during the year by the lecturers concerned, where appropriate. There will also be an opportunity to sit the Foundation Scholarship examination which is held during the break between semester one and semester two.
In the interest of maintaining and improving the quality of the highly regarded M.A.I. programme, views of or queries by individual students, either by personal representation or through any of the class representatives, will be welcomed at any time.

Prof. David Taylor

School of Engineering

SF B.A.I. Coordinator
3 Staff Contacts

3.1 School Departmental 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: TBD (internationaleng@tcd.ie)

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

Head of Discipline: 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 Mechanical Co-Ordinator: Associate Professor Tony Robinson (arobins@tcd.ie)
Executive Officers: Ms. Nicole Byrne (nbyrne3@tcd.ie)  
Ms. Melissa Caffrey (caffrem@tcd.ie)  

Department of Electronic and Electrical Engineering, Second Floor, Aras an Phiarsaigh

Head of Discipline: 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 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)  

Academic Registry

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 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.

5 Programme Regulations

5.1 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 – www.tcd.ie/calendar. You are expected to be aware of the various regulations - ignorance of the regulations is not a valid reason for failure to comply.

5.2 Collaboration 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 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. In the academic world, the principal currency is ideas.
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, which is located at http://tcd-ie.libguides.com/plagiarism. 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, found at: http://www.tcd.ie/calendar

I have also completed the Online Tutorial on avoiding plagiarism ‘Ready, Steady, Write’, located at http://tcd-ie.libguides.com/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.

5.3 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 Section (25) 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 miss 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 term, students who have not satisfied the department or school requirements may be reported to the Senior Lecturer’s Office as non-satisfactory for that term. In accordance with the regulations laid down by the University Council, non-satisfactory students may be refused permission to take their annual examinations and may be required by the Senior Lecturer to repeat their year. See also the sections dealing with College and engineering examination regulations.
5.4 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. Particular attention should be given to the College Regulations concerning medical certificates in the case of missed examinations. Further information is available in Section (35) of the College Calendar.

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.
6 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 from the Academic Registry. These prizes are issued in the form of book tokens and can be redeemed at Hodges Figgis and Co. Ltd.

BENEFACIONS

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.

VICTOR W. GRAHAM PRIZE

These prizes, founded in 1986 from funds subscribed by friends and pupils to mark Mr V.W. Graham's retirement, are awarded to the first year engineering student who obtains the highest marks in engineering mathematics (modules 1E1 and 1E2) at the annual class examination and to the second year engineering student who obtains the highest mark in engineering mathematics (modules 2E1 and 2E2) at the regular annual class examination. Value, first year prize €750, second year prize €1,000.

FRANCIS SPRING PRIZE

This prize was founded in 1935 by a bequest from Sir Francis Spring. It is awarded annually on the results of the annual examination of the second year of the engineering course. The prize is currently awarded in three parts. Value: first part €200, second part €150 and third part €100.
7 Senior Freshman Modules

7.1 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, 2018 to Friday, 12th April, 2019

REVISION/EXAMINATIONS (TRINITY TERM)
Examinations will be held at the end of each semester, from December 10th to 14th 2018 and April 22nd to April 26th 2019, inclusive.
For further details, please see Academic Year Structure document in Section 10 and the School of Engineering website.

7.2 Module Information

For all modules, detailed information is available on the School of Engineering website at https://www.tcd.ie/Engineering/undergraduate/baiyear2/.

2E1 Engineering Mathematics III
Co-coordinator: Associate Professor Dmitri Zaitsev (zaitsev@maths.tcd.ie)
5 ECTS Credits
Assessment: End of Semester Examination: 90%
Continuous Assessment: 10%

2E2 Engineering Mathematics IV
Co-coordinator: Associate Professor Sergey Frolov (frolovs@maths.tcd.ie)
5 ECTS Credits
Assessment: End of Semester Examination: 90%
Continuous Assessment: 10%

2E3 Computer Engineering II
Co-ordinator: Professor Carol O’Sullivan (carol.osullivan@tcd.ie)
5 ECTS Credits
Assessment: End of Semester Examination: 70%
Continuing Assessment: 30%

2E4 Solids and Structures
Co-ordinator: Professor Alan O’Connor (oconnoaj@tcd.ie)
5 ECTS Credits
Assessment: End of Semester Examination: 80%
Continuing Assessment: 20%

2E5 Thermo-Fluids
Co-ordinator: Assistant Professor Seamus O’Shaughnessy (oshaugse@tcd.ie)
Associate Professor Tony Robinson (arobins@tcd.ie)
5 ECTS Credits
Assessment: End of Semester Examination: 85%
Continuing Assessment: 15%

2E6 Electronics
Co-ordinators: Assistant Professor William Dowling (wdowling@tcd.ie)
Associate Professor Anthony Quinn (anthony.quinn@tcd.ie)
5 ECTS Credits
Assessment: End of Semester Examination: 70%
Continuing Assessment: 30%
2E7 Engineering and the Environment

Co-ordinator: Associate Professor Sarah McCormack (sarah.mccormack@tcd.ie)
Prof. Laurence Gill (gill@tcd.ie)
Assistant Prof. Liwen Xiao (liwen.xiao@tcd.ie)

5 ECTS Credits
Assessment: Continuous Assessment: 100%

2E8 Materials

Coordinator: Professor David Taylor (dtaylor@tcd.ie)
Associate Professor Roger West (rwest@tcd.ie)
Associate Professor Martin Burke (mburke@tcd.ie)
Mr. Peter Flynn (peflynn@tcd.ie)

5 ECTS Credits
Assessment: End of Semester Examination: 90%
Continuous Assessment: 10%

2E9 Engineering Design III – Give Me Shelter

Co-ordinator: Assistant Professor Maria Nogal (nogalm@tcd.ie)

5 ECTS Credits
Assessment: Group Assignments: 70%
Individual Assignments: 30%

Submission of the design journal is obligatory – students who fail to submit the design journal or who achieve a mark less than 40% in this individual assignment will fail this module.

2E10 Engineering Design IV – Buggy Project

Co-ordinator: Assistant Professor François Pitié (pitiief@tcd.ie)

10 ECTS Credits
2E11  Numerical Methods/Computational Engineering

Co-ordinator: Professor Anil Kokaram  
(ani.kokaram@tcd.ie)

5 ECTS Credits

Assessment:  
End of Semester Examination: 70%
Individual Assignments: 30%

7.3 Practical Work (laboratories and projects)

Laboratory/project sessions are part of 2E4, 2E5, 2E6, 2E7, 2E8, 2E9 and 2E10 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.

The learning objectives of these laboratories and projects are dominated by project management skills, time management skills, teamwork and communication skills which, by their nature, are demonstrated over the course of the academic year. 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 Engineering Laboratories are as follows:

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 5.00 p.m, 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 Section 11 and 12. You will be assigned to a specific group during the first week of term – details will be posted on the Engineering School notice board in the Museum Building and will also be emailed to you. 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.

8 General Guidelines

8.1 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.

8.2 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. Anyone seeking a candidate’s result must have the relevant student number. Tutors can also be contacted regarding examination results.

8.3 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.
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/Appeals%20Policy.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”.

17
Appeals

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. Calendar 2018-19 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.

8.4 Foundation Scholarship Examinations

Second year students in engineering are urged to consider entering for the Foundation Scholarship examination. Those who are elected:

(a) have their Commons free of charge;
(b) are entitled to rooms free of charge for up to nine months of the year;
(c) receive a salary which, together with any grant they may receive from an outside body, shall amount to not less than €253.95 per annum (after payment of the annual fee);
(d) are entitled to remission of the annual fee appropriate to their main course of study if they are not in receipt of outside scholarships or grants, save that undergraduate scholars from non-E.U. countries shall have their fees reduced by an amount corresponding to the appropriate fee level of an E.U. fee paying student.

Students wishing to sit the Foundation Scholarship Examinations must apply to the Senior Lecturer (Examinations Office, Academic Registry, Biotechnical Building, East End) by submitting Application Forms in person.
Application Forms are available from the Examinations Office, Academic Registry, Biotechnical Building, East End during October 2018 or online. Engineering Science Papers are set as follows:

(1) Engineering Science I (3 hours)
(2) Engineering Science II (3 hours)
(3) Engineering Science III (3 hours)

The field covered by the examination in each subject embraces all the work in that subject up to the end of Semester 1 of the second year of the B.A.I./B.A. course together with such further courses of reading as may be determined from time to time.

Foundation Scholarship Examinations will be held between Monday 7th January and Friday 11th January 2019 inclusive. However, depending upon the number of separate examinations required, it may be necessary to hold some examinations in the preceding week. Final examination timetables will be published in the first week of December 2018.

Further information is available in the University Calendar and on the Academic Registry website.

Please note that the names of those elected to Scholarship will be announced in Front Square on Trinity Monday, 29th April, 2019.

8.5 Regulations for Outgoing Engineering Students (Visiting and Erasmus)

Eligible students, undertaking the full 5 year course, have a wide variety of Study Abroad Options open to them in their 4th year, for either the full year or the second semester. For full details and of all options, please see the international section of the engineering website: https://www.tcd.ie/Engineering/international/outgoing/.

(Please note that places are allocated conditionally on the basis on a student’s SF results.)

Offers are confirmed once a student achieves the required II.1 grade in their JS exams.)
8.6 Modules in Junior Sophister Year

During Trinity term 2019, students are asked to complete a form in which they choose their specialist option for Junior Sophister year, 2019/2020. The choice is one of the following:

- Biomedical Engineering (BIO stream);
- Civil, Structural and Environmental Engineering (A stream);
- Computer Engineering (D stream);
- Electronic/Computer Engineering (CD stream);
- Electronic Engineering (C stream);
- Mechanical and Manufacturing Engineering (B stream);

It should be noted that no changes or amendments to student choices will be accepted after the deadline date, normally the last day of teaching term, but that plenty of time, guidance and information is given to students to help them make this choice. Whilst every effort is made to allow students to study the engineering stream they choose, the Engineering School Curriculum Committee reserves the right to allocate the places available - in some streams, the number of places for students in any year may be limited and certain restrictions may need to be applied. During semester 2, presentations will be given on the choices available by each department in the School.

In the Junior Sophister year, students have the option to take either a Broad Curriculum or Language module instead of CE3E4 – Innovation and Entrepreneurship for Engineers for the same ECTS credits.

Credit-bearing language modules are available in the following languages and proficiency levels (depending upon sufficient enrolment):

- A1 level (absolute beginners): Croatian, French, German, Japanese, Korean, Mandarin & Spanish
- A2 level (post-beginners): Japanese, Korean & Mandarin
- B1 level (non-beginners, intermediate - Leaving Certificate or equivalent required): French, German, Irish and Spanish.

Please note that students who have already attained a Leaving Certificate or equivalent qualification in a language are not eligible for A1 or A2 level classes, and may only apply for the B1 level classes.

An email will be circulated to all rising JS students regarding BC/Language Module options during the summer. See Broad Curriculum for more information.

8.7 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 reemphasise 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 4 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 recognized 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/

9 Student Supports

9.1 Academic Concerns: Sources of Assistance

- Other students in the class;
- Course 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 or Director of Teaching and Learning (Undergraduate), Associate Prof. Alan O’Connor (oconnoaj@tcd.ie);
- Students’ Union Education Officer (education@tcdsu.org)

9.2 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 (including 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.

9.3 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 personalize 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.

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 - Thursday, from 13:00 – 14:00, and Fridays 12:00 – 14:00.
- 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.

- 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. This portal will give you access to an ‘in tray’ 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 new system as well as access letters confirming registration.

9.4 Personal Concerns: Sources of Assistance

- **S2S Peer Support** is all about one student listening to another student and providing information and assistance. Peer Supporters are available for any student in the College and are there for anything you might want to talk through with them. You don’t need to be in distress or crisis to talk to a Peer Supporter, but they can help with the larger problems as well as the smaller things. Our volunteers are highly trained, confidential and professional, but they’re also fellow students who can offer some genuine empathy and a friendly ear. If anything is on your mind and you’d like to share it with a good listener then a Peer Supporter would love to help. You can email us directly at student2student@tcd.ie or request a meet-up with a Peer Supporter by calling (01) 896-2438 or filling out an online form. S2S website: http://student2student.tcd.ie. You can also drop-in to the S2S Office on the 3rd Floor of 7-9 South Leinster Street any Tuesday of the first term from 13:00 – 14:00 to meet directly with one or two of our volunteers.

- Your tutor (or any other tutor if you cannot find yours), or the Senior Tutor;

- **Student Counselling Service**, 3rd Floor, 7/9 South Leinster Street, Trinity College, Dublin 2 (Near the National Gallery). email: student-counselling@tcd.ie; tel: (01) 896-1407 Niteline (Thursdays to Sundays during term only, 21:00 – 02:30) 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 Monday – 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.**

### 9.5 **Tutors**

The tutors responsible for engineering students are available on the Senior Tutor’s website.
## 10 Academic Year Structure

### ACADEMIC YEAR CALENDAR 2018/19

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

* Note: it may be necessary to hold some exams in the preceding week.
11 Semester 1 Timetable and Lab Schedules

See below links for timetables, lab schedules and lab groups.

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

Semester 2 timetable and lab schedule (Hilary Term - January to April period) will be available on the School website from January 2019.

No changes to lab groups will be made.


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