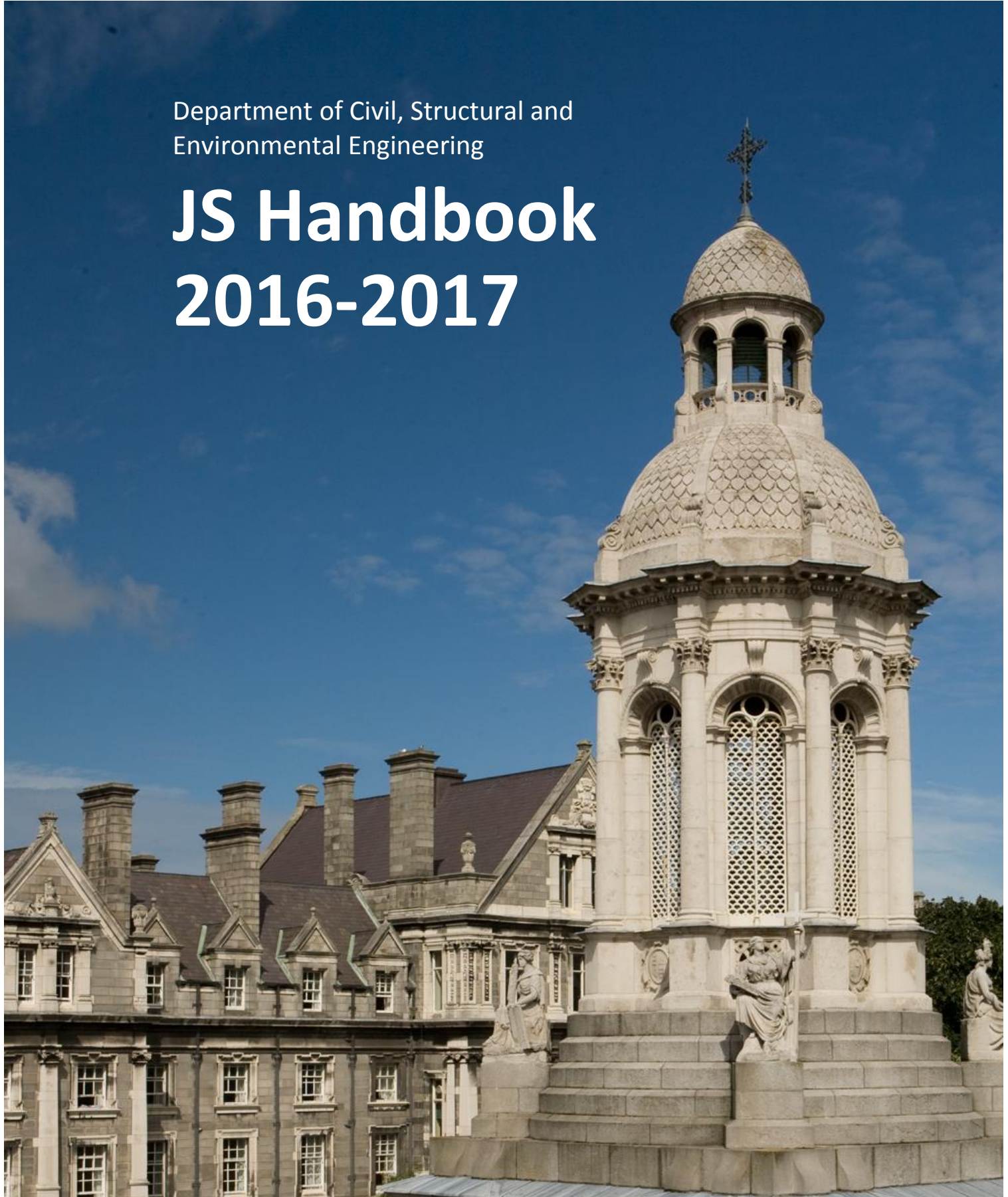**Trinity College Dublin**
Coláiste na Tríonóide, Baile Átha Cliath
The University of Dublin

Department of Civil, Structural and
Environmental Engineering

JS Handbook
2016-2017

Contents

A Note on this Handbook

This handbook applies to all students taking Civil Engineering. 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 by 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.

Course Overview

The JS year is broken into two semesters and the examinations are at the end of the second semester only (this may be subject to change at a later date). To do well in your JS year it is important to work consistently. It is particularly important, from your perspective, to work hard this year. In your last two years you have had the comfort that your exam performance did not impact on your final result. However, this is not the case in JS year, as your performance in JS year will constitute **20% of your overall BAI degree** assessment.

Students wishing to proceed into Year 5 and obtain an **MAI degree** must attain at least a second class (second division) grade in their Senior Sophister year along with an overall combined result of at least second class (second division) grade in their Junior Sophister and Senior Sophister year. For the purposes of calculating eligibility to progress to the MAI, in the event that supplemental examinations are taken in the Junior Sophister year, all components contributing towards the overall supplemental mark will be capped at 40%. Students are permitted one repeat of their Senior Sophister year to achieve the grade required to proceed to the fifth year of the course. Students who do not achieve a grade of II.1 or higher in their Junior Sophister year may be interviewed by the Department as part of the selection process.

To be considered eligible for consideration for an industry placement / internship in the Senior Sophister year, a II-1 grade is required in Junior Sophister year.

Modules

Module code	Module title	Co-ordinator	ECTS
School modules			
MA3E1	Engineering Mathematics V	Prof. Joe O'Hogain	5
EE3E3	Probability and Statistics	Prof Liam Dowling	5
CE3E4	Innovation & Entrepreneurship for Engineers	Prof. Niamh Harty	5
**JS Engineering Students may take a language or Broad Curriculum module instead of 3E4 Innovation & Entrepreneurship for Engineers			
Civil Engineering modules			
CE3A1	Engineering Surveying	Prof. Brian Caulfield	5
CE3A2	Structural Design	Prof. Brian Broderick	5
CE3A3	Hydraulics	Prof. Aonghus Mc Nabola	5
CE3A4	Structural Analysis	Prof. Dermot O'Dwyer	5
CE3A5	Geotechnical Engineering	Prof. Brendan O'Kelly	5
CE3A7	Transportation and Highway Engineering	Prof. Margaret O'Mahony	5
CE3A8	Geology for Engineers	Prof. Bruce Misstear	5
CE3A9	Group Design Project	Prof. Margaret O'Mahony	10

**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.

JS engineering/engineering with management students may opt to take a Broad Curriculum or Language module instead of the engineering module CE3E4 – Innovation and Entrepreneurship for Engineers.

For more information on this see below link:
http://www.tcd.ie/Broad_Curriculum/

Students who wish to change their mind and drop out of their broad (BC) or Language Module and take CE3E4 – Innovation and Entrepreneurship, to please inform Katherine Walsh on walshk7@tcd.ie.

Module descriptors are available on the Students Portal Page under Courses & Modules.

Examinations

Examinations in all the above modules take place at the end of the year, i.e., in April / May (this may be subject to change at a later date). All examinations are two hours long.

The School of Engineering examination rules are set out on the School of Engineering website, including details of the assessment procedure used to determine the BAI degree grade awarded to each student.

Assessment

The marks returned in the annual examinations are based on the annual examination but may, depending on the module, contain a continuous assessment component.

Generally JS modules have a weighting of 5 ECTS, giving a total of 60 ECTS credits for the year.

Assignments

Assignments should be submitted to the Assignment Boxes on the first floor of the Museum Building, beside the coffee machine, unless advised otherwise. Cover sheets must be fully completed and attached to all assignments submitted.

College Regulations

The College regulations are detailed in the College Calendar and students are expected to be aware of these regulations. As in law, ignorance of the regulations does not constitute a defence. The calendar is available in the College libraries among other places.

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.

Plagiarism is serious whether the plagiarism is deliberate or has arisen through carelessness.

The key areas of the JS year where plagiarism may be an issue are laboratory and site visit reports. Be careful when you are writing a report to make sure that you reference your work properly, giving credit to the sources you have used. **Please note that any assignments, projects or continuous assessment submitted by students for assessment may be checked for plagiarism through the internet or through software packages, such as *Turnitin*.**

When submitting individual work, make sure that the work is your own. For example, a review chapter within your project report must be written in your own words. Where the material is being repeated verbatim from published, web or other sources, you should use inverted commas, italics and/or present the material in a separate paragraph, to make it clear to the reader that you are quoting directly (and you must reference the source).

For example, the following passage uses both references and direct quotation.

> In 1676 Robert Hooke was the first to realise that the ideal shape for an arch ring is that of a funicular polygon (Heyman 1982). He found the shape of funicular polygons experimentally by hanging weights from a string and published this fact in the form of an anagram; whose solution is "*Ut pendet continuum flexile sic stabit contigiuum rigidum inversum*" - as the continuous flexible hangs downward so will the continuous rigid stand upward inverted (Hooke 1676)*.*

Where the first reference refers to:

Heyman J., 1982, "The Masonry Arch", Ellis Horwood, Chichester

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 modules. Exceptions to this rule are one-year and part-year visiting students, who are awarded credit for individual modules successfully completed.

Placement and Pre-requisites information

The MAI programme is structured to facilitate delivery of higher-level content through prerequisite modules. The term 'prerequisite' indicates a module which it is strongly recommended to complete prior to engaging a new one. Only in exceptional circumstances will a student be permitted not to complete prerequisite modules. Some of the fourth year modules are prerequisites for some of the fifth year modules and some MAI projects in the different disciplines. In general, it will not be possible to take fifth-year modules or MAI projects without having completed the required prerequisites for these activities (see module descriptors for details). Accordingly, for students opting for a placement in their fourth year, or for those following Unitech/Erasmus or another period of study abroad, it will be necessary to ensure prerequisites are met for a suitable set of modules and the project work in the fifth-year.

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

1. In the case of a half-year placement, the student taking the prerequisite modules for their intended fifth year modules/project work in the semester they spend at College (this will generally be the first semester). Prerequisite modules will, where possible, be timetabled for the first semester.

2. In the case of a period of study abroad, the student taking modules equivalent to the prerequisites for their intended fifth-year modules/project work during their period of study abroad in their fourth year.

3. By the student taking only fifth-year modules/projects which do not have prerequisites.

4. By student taking fourth year prerequisite modules in the first semester of their fifth-year. However, for the latter option, since this would be on a case-by-case basis, the timetable cannot be specifically arranged to facilitate this.

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

JS Co-ordinator

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

Civil Engineering Library

The Civil Engineering Library is located in the Museum Building, close to the main Civil Engineering Office. The opening hours during term are Monday – Thursday from 3.30p.m. – 5.30p.m.

Safety Officer

Professor Dermot O'Dwyer is the member of the academic staff who deals with safety. If you have any questions or concerns relating to safety you should contact Dr. Dermot O'Dwyer at dwodwyer@tcd.ie . Remember safety is everyone's concern, if you see something that is unsafe please notify us.

Web Notes

Some lecturers place notes or additional information on the web: either on Blackboard or at http://www.tcd.ie/civileng/local/notes/index.php in the lecturers' subdirectories.   Lecturers will inform you regarding the location of web material for their modules in lectures.

Key Dates: 2016-2017

Teaching Terms

First Semester

Monday 26 September 2016 – Friday 16 December 2016

Study Week: 7 – 11 November 2016

Second Semester

Monday 16 January 2017 – Friday 7 April 2017

Study Week: 27 February – 3 March 2017

Examination Dates

Annual Examinations 2017: Monday 1 May to Friday 26 May 2017

Please check notice-boards for full Exam Timetables

Cal. Wk. Nos.	Dates 2016/17 (week beginning)	Outline Structure of Academic Year 2016/17	Notes
1	29-Aug-16	Supplemental Examinations	**Statutory Term (Michaelmas) begins**
2	05-Sep-16		
3	12-Sep-16		
4	19-Sep-16	Orientation Week/Freshers' Week	
5	26-Sep-16	Teaching Week 1	**Michaelmas Lecture term begins**
6	03-Oct-16	Teaching Week 2	
7	10-Oct-16	Teaching Week 3	
8	17-Oct-16	Teaching Week 4	
9	24-Oct-16	Teaching Week 5	
10	31-Oct-16	Teaching Week 6 (Monday, Public Holiday)	
11	07-Nov-16	Teaching Week 7 – **Study Week**	
12	14-Nov-16	Teaching Week 8	
13	21-Nov-16	Teaching Week 9	
14	28-Nov-16	Teaching Week 10	
15	05-Dec-16	Teaching Week 11	
16	12-Dec-16	Teaching Week 12	← **Michaelmas term ends Sunday 18 Dec 2016**
17	19-Dec-16		
18	26-Dec-16	Christmas period (College closed 23 December 2016 to 2 January 2017, inclusive)	
19	02-Jan-17		
20	09-Jan-17	Foundation Scholarship Examinations	Note: it may be necessary to hold some exams in the preceding week
21	16-Jan-17	Teaching Week 1	**Hilary Term begins**
22	23-Jan-17	Teaching Week 2	
23	30-Jan-17	Teaching Week 3	
24	06-Feb-17	Teaching Week 4	
25	13-Feb-17	Teaching Week 5	
26	20-Feb-17	Teaching Week 6	
27	27-Feb-17	Teaching Week 7 **– Study Week**	
28	06-Mar-17	Teaching Week 8	
29	13-Mar-17	Teaching Week 9 (Friday, Public Holiday)	
30	20-Mar-17	Teaching Week 10	
31	27-Mar-17	Teaching Week 11	
32	03-Apr-17	Teaching Week 12	← **Hilary Term ends Sunday 9 April 2017**
33	10-Apr-17	Revision **Trinity Week (Monday, Trinity Monday; Friday, Good Friday)**	**Trinity Term begins**
34	17-Apr-17	Revision (Monday, Easter Monday)	
35	24-Apr-17	Revision	
36	01-May-17	Annual Examinations 1 (Monday, Public Holiday)	**Annual Examination period:** Four weeks followed by five weeks for marking, examiners' meetings, publication of results, Courts of First Appeal and Academic Appeals
37	08-May-17	Annual Examinations 2	
38	15-May-17	Annual Examinations 3	
39	22-May-17	Annual Examinations 4	
40	29-May-17	Marking/Courts of Examiners/Results	
41	05-Jun-17	Marking/Courts of Examiners/Results (Monday, Public Holiday)	
42	12-Jun-17	Marking/Courts of Examiners/Results	
43	19-Jun-17	Marking/Courts of Examiners/Results/Courts of First Appeal	
44	26-Jun-17	Courts of First Appeal/Academic Appeals	← **Statutory (Trinity) term ends Sunday 02 July 2017**
45 to 52	03 Jul 2017 – 21 Aug 2017	Postgraduate dissertations/theses/Research 1-8	Nine weeks between end of statutory (Trinity) term and commencement of statutory (Michaelmas) term. This period is also used for writing up Masters dissertations and research theses due for submission in September. ← **Ends Sunday 27 August 2017**

Academic Skills for Successful Learning

Skills4Study Campus has now been replaced by a Blackboard module called Academic Skills for Successful Learning designed by Student Development. This is available to all students from: http://mymodule.tcd.ie/

Careers Advisory Service

Marielle Kelly is the Careers Advisor for Engineering/Engineering with Management students. She may be contacted on **marielle.kelly@tcd.ie** . Further information can be found at http://www.tcd.ie/careers/

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:

- o   Time management
- o   Presentation skills (incl poster presentations)
- o   Procrastination and Concentration
- o   Effective study skills
- o   Writing skills
- o   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

Accessing the service:

Student Learning Development
Trinity College Dublin
3rd Floor, 7-9 South Leinster Street
Dublin 2, Ireland
Web: http://student-learning.tcd.ie
Email: student.learning@tcd.ie
Phone: 01 896 1407

Contacting Academic Registry

All enquiries should be directed though one of the following channels:

- Log an enquiry via ASK AR on the my.tcd.ie portal
- Via email at academic.registry@tcd.ie
- Via phone at extension 4500 [student helpline] or extension 4501 [staff]

Student Health Service Information

The Clinical staff in the College Health Service are as follows:

Medical Director:	Dr. David McGrath
Assistant Medical Director/Psychiatrist:	Dr. Niamh Farrelly
Doctors:	Dr. Niamh Murphy
	Dr. Mary Sheridan
	Dr. Aisling Waters
	Dr. Colette Horgan
Physiotherapist:	Ms. Karita Cullen
Health Promotion Officer:	Ms. Martina Mullin

Student 2 Student

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

Staff List

Head of Department	Prof. Brian Broderick	bbrodrck@tcd.ie
JS Coordinator	Prof. Margaret O'Mahony	margaret.omahony@tcd.ie
SS Coordinator	Prof. Brian Caulfield	brian.caulfield@tcd.ie
MAI Coordinator	Prof. Bidisha Ghosh	bghosh@tcd.ie
Chief Technician	Dr. Kevin Ryan	ryank8@tcd.ie
Office Staff	Mr. Daniel Wearen	wearend@tcd.ie
	Ms. Mary Curley	curleyma@tcd.ie

Staff Member	Email Address	Office Location
Mr. E Dunne	edunne@tcd.ie	Simon Perry Bldg
Asst. Prof. B. Fitzgerald	fitzgeb7@tcd.ie	Simon Perry Bldg
Prof B Ghosh	bghosh@tcd.ie	Simon Perry Bldg
Prof. L Gill	gilll@tcd.ie	Simon Perry Bldg
Mr. M Grimes	migrimes@tcd.ie	Simon Perry Bldg
Mr. M Harris	mharris@tcd.ie	Simon Perry Bldg
Prof. N Harty	hartyn@tcd.ie	Red Brick Bldg
Mr. P Keogh	keoghpc@tcd.ie	Museum Bldg
Mr. D McAuley	damcaley@tcd.ie	Simon Perry Bldg
Prof. S Mc Cormack	sarah.mccormack@tcd.ie	Simon Perry Bldg
Dr. G Mc Granaghan	gmcgrana@tcd.ie	Simon Perry Bldg
Prof. A Mc Nabola	amcnabol@tcd.ie	Simon Perry Bldg
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Prof. A O'Connor	alan.oconnor@tcd.ie	Simon Perry Bldg
Prof D O'Dwyer	dwodwyer@tcd.ie	Museum Bldg
Prof. B O'Kelly	bokelly@mail.tcd.ie	Simon Perry Bldg
Prof. M O'Mahony	margaret.omahony@tcd.ie	Museum Bldg
Prof. T Orr	torr@tcd.ie	Museum Bldg
Prof. S Pavia	pavias@tcd.ie	Simon Perry Bldg
Mr. P Veale	vealep@tcd.ie	Red Brick Bldg
Prof. R West	rwest@tcd.ie	Simon Perry Bldg
Prof. L. Xiao	lxiao@tcd.ie	Hamilton Bldg

Telephone Numbers

Department Office	896 1457
Conference Room/Library	896 1850
Fax (Departmental Office)	677 3072

The Civil Engineering Office is open Monday – Friday, from 9am to 5pm, and is closed for lunch from 1-2pm.