

School of Engineering



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

INTERNATIONAL STUDENT HANDBOOK

OUTBOUND MOBILITY

www.tcd.ie/engineering/



**ENGINEERING
STREAMS**

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Biomedical
Engineering



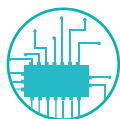
Civil,
Structural and
Environmental
Engineering



Computer
Engineering



Electronic
Engineering



Electronic and
Computer
Engineering



Mechanical and
Manufacturing
Engineering

In a world where graduates need to address many global challenges, it is important that their University education equips them with the ability to work with other cultures and professions

65% of employers value international experience when recruiting



Erasmus Impact Study

WELCOME

1. Introduction

In a world where graduates need to address many global challenges, it is important that their University education equips them with the ability to work with other cultures and professions. Studying abroad is an important part of Trinity Education and students who undertake global mobility programmes have the opportunity to develop sought after attributes such as linguistic skills, intercultural competencies and global citizenship.

Mobility is defined as any international experience that is closely aligned to a student's programme of study and approved as a formal mobility programme by the School of Engineering, and it can last between two weeks (summer school) and twelve months (full academic year).

There are different types of student mobility programmes described in this handbook:

- European mobility for studies or traineeship (Erasmus+, Cluster, Unitech);
- International (non-European) exchanges;
- Visiting student mobility.

Trinity has established collaborations with some of the world's leading universities, which gives students access to a network of more than 300 exchange partners. The School of Engineering currently has:

- Erasmus+ partnerships in 11 European countries;
- 8 Unitech academic partners and 11 Unitech corporate partners across Europe;
- 17 international exchange partnerships world-wide.

2. Application Criteria

Only students on the MAI track are eligible to participate in a semester or year-long exchange. Outbound mobility is carried out in Year 4 of the MAI degree programme and applicants must achieve a minimum of II.1 at the first attempt (no reassessments to take) at the Junior Sophister assessment to be eligible. Students can go on an exchange during Semester 2 or for the full academic year.

Shorter mobilities, such as summer schools, can be carried out by all engineering students.



You will you have access to some of the top universities in the world, and you'll also have the opportunity to experience different teaching styles and learn to think outside the box!

3. Tuition fees and mobility funding

Thanks to Trinity's bilateral agreements with its partner universities, Erasmus students do not pay additional tuition fees and can compete for mobility funding to off-set the costs of travel. Fees might apply to international (non-EU) and short-term exchange students.

4. Module enrolment, ECTS recognition, and grade conversions

Students must enrol in 30 ECTS per semester (60 ECTS per year), of which max. 5 ECTS (usually one module) can be outside of the students' discipline, e.g. taking a language, business or similar non-cognate module at an appropriate level. Trinity will take their best 22.5 credits per semester (45 per year) towards their grade.

My Erasmus semester in INSA Lyon was one of the most fantastic and unique experiences I have ever had. Living and studying in another country is a once in a lifetime opportunity, and I cannot recommend it enough. Studying through French was daunting at first, but after the first few weeks I started to get more comfortable with it and improved quite quickly!

James Sutton, Erasmus+ mobility for studies

It is important to select modules that match Trinity's academic offering both in terms of content and credits, e.g typically Year 4 modules, Year 5 Masters modules or, exceptionally, Year 3 modules. The rationale is that the exchange experience is academically as good as if a student remained in TCD and positions the student for their MAI year upon return. Learning agreements (and possible changes to them) must be approved by the academic coordinators at both the home and the host institution.

Marks will be converted based on the ECCTIS grade conversion tables. "Pass or fail" modules will show as a 40% mark on Trinity's transcript.

Please be mindful that to be able to progress to Year 5 of the MAI programme, students must achieve a mark average of 60%, based on their JS and SS years.



In an increasingly globalized world, cross-cultural communication and intercultural sensitivity are becoming vital skills

5. Student responsibility and institutional assistance

Global Officers and Academic Coordinators, both at Trinity and abroad, are happy to assist students before, during, and after their mobility.

However, students are expected to carry out their own due diligence when it comes to verifying partner universities' academic offering, language of instruction, application procedure and deadlines. They are also responsible for making their own travel arrangements, acquiring the necessary visas/permits, getting health insurance coverage, opening foreign bank accounts, etc.

Some partner universities allocate Tutors / Buddies to help exchange students adjust to the new cultural and academic environment, so please make sure to ask them if this is an option.

6. Timeline

Timeline	Programme	Step	Responsible Party
Late August	International internship (Polytechnique Montreal)	Application deadline	Students
Late August	Unitech	Unitech General Assembly week for Start-Up and End-of Year students.	Unitech team / Students
October	Double degree (Columbia)	Deadline to submit an expression of interest to the School of Engineering.	Students
Early November	Erasmus/Cluster/Unitech/ International exchange	An information session on international opportunities is organised. Students contact Departmental coordinator to register interest in an exchange programme.	School of Engineering
December	Erasmus/Cluster/Unitech/ International exchange	Application deadline.	Students
Late January	Unitech	Interviews with corporate representatives.	Unitech team/ Students
February	International internship (Polytechnique Montreal)	Results are announced.	Polytechnique Montreal



My year abroad has introduced me to an international community of engineers that have changed how I think as a person and professional.

Euan Carroll, Unitech

Timeline	Programme	Step	Responsible Party
Early February	Unitech	Student selection and university allocation.	Unitech team
February	Double degree (Columbia)	Application deadline.	Students
March	Erasmus / International exchange	Application deadline. Once successful candidates accept their offer, Trinity will nominate them to the partner universities.	Students / Erasmus and Study Abroad teams
March / April	Double degree (Columbia)	Eligible students will receive an acceptance pending their final Year 4 exam results.	Columbia University
June	Double degree (Columbia)	Final Year 4 exam results will be submitted to Columbia for verification.	School of Engineering
Early summer	Erasmus / International exchanges	Organise documentation. Attend obligatory pre-departure meetings. Organise health insurance, travel arrangements, visa (if applicable), etc...	Students
Upon completion of MS course at Columbia	Double degree (Columbia)	Final Columbia results reported back to Trinity for conferring of MAI degree	Columbia University



We strive to educate global citizens who will have a real impact on society and who will enhance engineering throughout the world, by sharing their innovative ideas.

7. Making the most of the experience

A helpful resource to support students in reflecting on their experience abroad is Trinity's Guided Self-Reflection Tool which is aimed at guiding students to capture and articulate their learning inside and outside of the classroom. For more information: <https://www.tcd.ie/students/reflection/>.

Another important resource is Trinity's Careers Service, that can help students contextualise their experience and present their semester/year abroad achievements to potential employers.

For more information:

<https://www.tcd.ie/Careers/students/index.php>.

8. Where to go and how to apply

8.1 Erasmus+ / Cluster

Study abroad at a European University can be done within the CLUSTER network (Consortium Linking Universities of Science and Technology for Education and Research, www.cluster.org) or through the Erasmus+ programme (<https://erasmus-plus.ec.europa.eu/>), which supports education, training, youth and sport in Europe.

It is possible to study abroad at a partner university for one semester or a full academic year in one of the 33 Erasmus+ Programme Countries. Most Erasmus+ exchanges are subject-specific, and the School of Engineering currently counts the following partnerships:



Country	University	Study area
Austria	Universität Klagenfurt	Electronic & Electrical Engineering
	Montanuniversität Leoben	Mechanical & Manufacturing Engineering
	Technische Universität Wien	Civil Engineering
Belgium	KU Leuven	Engineering
	Université catholique de Louvain	Engineering Mechanical & Manufacturing Engineering
Finland	Aalto University	Engineering
France	Institut Polytechnique de Grenoble	Engineering
	Groupe ICAM Toulouse	Engineering
	INSA Lyon*	Electronic & Electrical Engineering Engineering Mechanical & Manufacturing Engineering
Germany	RWTH Aachen*	Biomedical Engineering Engineering
	Technische Universität Darmstadt	Civil Engineering Electronic & Electrical Engineering Engineering Mechanical & Manufacturing Engineering
	Karlsruher Institut für Technologie	Mechanical & Manufacturing Engineering Engineering Engineering
	Universität Stuttgart	Electronic & Electrical Engineering



Places	Website
2 semester / 1 full year	https://www.aau.at/en/university/organisation/administration-and-management/international-office/
2 semester / 1 full year	https://www.unileoben.ac.at/en/studying/prospective-international-students/
4 semester / 2 full year	https://www.tuwien.at/en/studies/international
6 semester / 3 full year	https://www.kuleuven.be/global
2 semester / 1 full year	https://uclouvain.be/en/study/study-in-belgium-ti.html
4 semester / 2 full year	https://www.aalto.fi/en/services/incoming-exchange-students
4 semester / 2 full year	https://www.grenoble-inp.fr/en
2 semester / 1 full year	https://www.icam.fr/
10 semester / 5 full year 6 semester / 3 full year 8 semester / 4 full year	https://www.insa-lyon.fr/en/node/10535
1 semester 3 semester / 1 full year + 1 semester	https://www.rwth-aachen.de/cms/root/Zielgruppenportale/~uzn/Internationale/lidx/1/
2 semester / 1 full year 2 semester / 1 full year	https://www.tu-darmstadt.de/universitaet/international/index.en.jsp
6 semester / 3 full year 2 semester / 1 full year	
4 single semester or 2 full year places 4 single semester or 2 full year places	https://www.intl.kit.edu/english/14011.php
2 semester / 1 full year	https://www.uni-stuttgart.de/en/study/international/non-degree/

Country	University	Study area
Iceland	University of Iceland	Engineering
Italy	Università di Ferrara	Civil Engineering
	Politecnico di Milano*	Engineering
	Università degli Studi di Napoli Federico II	Electronic & Electrical Engineering
	Politecnico di Torino	Engineering
Netherlands	Eindhoven University of Technology	Engineering
Portugal	University of Lisbon - IST Técnico Lisboa	Engineering Mechanical & Manufacturing Engineering
Spain	Universitat de Barcelona	Biomedical Engineering Engineering
	UPC Universitat Politècnica de Catalunya*	Civil Engineering Engineering
	Universidad de Burgos	Civil Engineering
	Universidad de Granada	Civil Engineering
Sweden	Chalmers University of Technology*	Engineering Engineering
	KTH Royal Institute of Technology in Stockholm	Engineering

* Unitech partners. This network also includes two non-Erasmus+ partners: ETH Zurich, Switzerland, and Loughborough University.



Places	Website
4 semester / 2 full year	https://english.hi.is/university/international_office
2 semester / 1 full year	https://www.unife.it/en/come-to-study/exchange-students
2 semester / 1 full year	https://www.polimi.it/en/services-and-opportunities/international-mobility/
4 semester / 2 full year	http://www.international.unina.it/
4 semester / 2 full year	https://international.polito.it/
6 semester / 3 full year 4 semester / 2 full year	https://www.tudelft.nl/en/education/programmes/exchange https://www.tue.nl/en/education/become-a-tue-student/exchange-students/
4 semester / 2 full year 4 semester / 2 full year	https://aai.tecnico.ulisboa.pt/en/
1 single semester place 2 semester / 1 full year	https://www.ub.edu/web/portal/en/international/study-at-the-ub/
4 semester / 2 full year 2 semester / 1 full year	https://www.upc.edu/sri/en/students
2 semester / 1 full year	https://www.ubu.es/english-version
2 semester / 1 full year	https://internacional.ugr.es/pages/movilidadinternacional?lang=en
6 semester / 3 full year 6 semester / 3 full year	https://www.chalmers.se/en/education/student-mobility/Pages/default.aspx
4 semester / 2 full year	https://www.kth.se/en/studies/exchange

Application timeline

Early November

Attend information sessions on Erasmus+ opportunities and research possible options. Make sure that the choices are compatible with the chosen degree/study field.

December

Contact Departmental coordinator to register interest in an Erasmus+ exchange programme. Submit application according to the procedure defined by the School of Engineering.

March

The Erasmus Team will be in touch with an additional webform to complete. This information is needed to send a nomination to the host university, which will then get in contact with candidates. Follow the instructions sent by the partner university within the deadlines given.

Early summer

Organise Erasmus+ grant documentation, for which the Erasmus+ Team will provide guidance. Submit learning agreement, which must be approved and signed by the Academic Coordinators. Attend obligatory pre-departure meetings to know what to expect while on exchange. Organise health and travel insurance. Prepare for departure and book flights, accommodation, etc. once the Erasmus+ paperwork is complete and approved.

In case of withdrawal, please make sure to notify Departmental coordinators and the Erasmus+ office: Erasmus.Outgoing@tcd.ie.



We believe that **Science, Technology, Engineering, and Mathematics** have the power to change the world. Our mission is to enable our staff, students and graduates to harness that power to tackle the global challenges facing society and help us all to live better, more fulfilling lives on a healthy planet.

Erasmus+ Grant

The Erasmus+ grant is as a contribution to travel and subsistence costs, issued by the European Commission through the National Agency in Ireland. In order to receive the Erasmus+ grant, students must complete the associated documents. Monthly grant rates range from €270 to €425 per month dependent upon the type of Erasmus+ mobility and the cost of living in the destination country. Students receive the grant in instalments: the first one after submission of the Confirmation of Arrival form, the Erasmus Grant Agreement and the final Learning Agreement, and the last one at the end of the exchange, following receipt of the Confirmation of Departure form and the completion of the Participant Report.

CLUSTER exchanges are open to students from the School of Engineering and allow them to benefit from the Erasmus+ grant and associated supports during their time abroad.

In case of withdrawal during the mobility, students must inform the Erasmus+ team and reimburse funds on a pro-rata basis.

*An opportunity
of a lifetime to
experience local
cultures,
expand
networks and
open your
mind.*

Ronan McAlister,
Unitech

8.2 Unitech

The UNITECH International Society was founded with the joint objective to develop a group of talented young engineers to successfully navigate future challenges in global industry and to help bridge the gap between the corporate and academic world. UNITECH is a competitive programme that takes place for the full Year 4 (and may include the summer months). Exchanges are open to 10 Trinity Engineering students per year and combine an Erasmus academic exchange during semester 1 with a Unitech partner University, and an Erasmus paid internship during semester 2 with a Unitech Corporate partner. A student will be a graduate of Unitech once they successfully complete their MAI year 5 in TCD.



The programme is divided into the following phases:

- Start-Up Week
- Academic exchange (partner University)
- Mid-Term Week
- Internship (Corporate partner)
- End-Of-Year Week

For more information, visit:

<https://www.unitech-international.org/> or contact:

Trinity Academic programme Director,
Prof. Tim Persoons: **PERSOONT@tcd.ie**

Trinity Local office coordinator, Ms. Chloe O'Connor:
internationaleng@tcd.ie

Unitech office manager, Ms. Belinda Haas:
belinda.haas@unitech-international.org

Unitech International Society Assistant, Ms. Zydrune Jaskauskaitė:
zydrune.jaskauskaitė@unitech-international.org.

Application timeline

Mid-November	Information session
December	Application deadline
January	Interviews with corporate representatives
February	Selection and allocation
March	Erasmus+ application procedure (see above)

My year abroad has introduced me to an international community of engineers that have changed how I think as a person and professional.

Euan Carroll, Unitech

Unitech and Erasmus+ grants

The School of Engineering allows Unitech students to access both Unitech funding (1'000€) and Erasmus+ grants.

8.3 International exchanges

International exchanges consist in mobility programmes with universities outside of Europe, based on College-wide collaboration agreements. During the last 5 years, Engineering students have spent a semester or year abroad in one of the following partner institutions:



A light teal world map is shown in the background. Overlaid on the map are text boxes for various regions, listing partner universities. The regions listed are Canada, USA, China, Singapore, Hong Kong, South Korea, Japan, and Australia. Each region's name is in bold teal, and the university names are in a lighter teal.

CANADA

McGill University
University of Toronto
University of Waterloo

USA

University of California
University of North Carolina
University of Notre Dame
University of Wisconsin – Madison

CHINA

Tsinghua University

SINGAPORE

National University of Singapore

HONG KONG

Hong Kong University of Science & Technology

SOUTH KOREA

Sungkyunkwan University

JAPAN

Tokyo University University of Kyoto

AUSTRALIA

Australian National University
University of Melbourne
University of New South Wales
University of Queensland
University of Sydney

For more information and guidance, please visit the Study Abroad website:
<https://www.tcd.ie/study/study-abroad/>

Application timeline

November

Attend global mobility information sessions and research preferred partners. Write a personal statement explaining why the chosen partner is the best academic fit. It is possible to apply for up to 6 options (150 words required for top three choices only).

December

Complete the application form and submit it by the deadline.

March

Successful applicants will receive an offer, and once they accept it, Trinity will nominate them to the partner universities, who may get in touch with them and ask for supplementary documents. It is strongly recommended to read through the partner pages on the Study Abroad website and to follow the partner university's deadlines and procedures.

Early summer

Attend mandatory pre-departure training and organise visa (if applicable), health and travel insurance. Once the paperwork is complete and approved, prepare for departure and book flights, accommodation, etc. Submit learning agreement, which must be signed by the Academic Coordinators. Sign the outbound declaration form and return it to Trinity Global before departure.

In case of withdrawal, students must inform the Academic coordinator and the Study Abroad team:

international.exchange@tcd.ie



As knowledge grows, we understand better the effects, both positive and negative, that our way of living has on the world around us

Global Mobility Bursary

Trinity Global aims to facilitate students engaging in mobility, by ensuring access to International Exchange programmes through the provision of Global Mobility bursaries. These bursaries are competitive, and students will need to apply separately. Information on how to apply for these bursaries will be provided at the information sessions.

Please note that a condition of receiving these funds is that students provide feedback about their experience abroad.

8.4 International internships

In the 2nd semester of year 4, students have the option to do a 5-month internship, which can be done in Ireland or abroad. A range of international options are available annually (in consultation with 4E4 internship coordinators). For more information on the 4E4 internship module:

<https://www.tcd.ie/Engineering/assets/module-descriptors/ss/MEU44E04.pdf>

Aside from the 4E4 credit-bearing internships that form part of the course, there are also a wide range of (non-credit bearing) international internship options advertised via the Trinity Careers website, that students may organise to do independently during their summer holidays:

<http://trinity.careergate.ie/jobs>.



Research internships at Polytechnique Montréal

This is a research internship partnership for 4th year students, who spend semester 2 participating in research projects at Polytechnique Montréal, and are supervised through TCD's 4E4 internship module.

Duration: The recommended duration of the internship is 4 months, between January and June 2023. Internships kick off with a welcome session to facilitate your students' integration.

Financial Arrangement: Scholarships are 1000 CAD/month (up to a maximum of 4000 CAD for 4 months) and will be awarded to 30 students.

Nominations: POLY-MTL limits applications to 10 per institution. Non-nominated candidates will not be considered.

Application Procedure: Nominated candidates must apply and submit their required documents online via the POLY-MTL MoveOn platform:

- Copy of most recent academic transcript clearly stating GPA or cumulative average
- Proof of full-time enrolment
- Letter of motivation (including name of professor; title of project; interest and skills in working in the selected project)
- Copy of passport
- Curriculum vitae
- If available, a copy of an internship report made in the past.

Deadline: Nominated candidates must apply by February. Results will be announced in March.

Programme coordinator at Polytechnique Montréal,
Stephanie Murphy: stephanie.murphy@polymtl.ca and
point@polymtl.ca

8.5 Summer schools

Many of Trinity's partner universities offer shorter summer courses which are open to Trinity students. Taking part in a summer programme can be a great way to experience studying abroad without spending a whole term or year abroad. Most programme typically run 2-4 weeks in length and tend to be quite cost efficient, with some partners offering generous tuition waivers or discounts. Unlike exchange programmes, credits gained through summer programmes are typically not recognised for credit towards Trinity degree, unless they count as electives. Nevertheless, they will provide an international study experience, allowing participants to gain useful employability skills.



TCD-Columbia University Double Diploma

A dual pathway programme leading to the award of a professionally accredited MAI degree by Trinity College Dublin and an MS degree by Columbia University.

As part of this dual degree programme, students will complete the first four years of the five-year Integrated Engineering or Engineering with Management (MAI) programmes in Trinity, followed by a year at Columbia University, during which they will complete one of several existing Master of Sciences (MS) courses.

While at Columbia, students will complete a dissertation (30 ECTS) for Trinity in Year 5. They also complete 30 US Credits (approx. 60 ECTS) for Columbia.

Eligible programmes:

Trinity Engineering Stream

Civil, Structural and Environmental Engineering
 Mechanical and Manufacturing Engineering
 Biomedical Engineering
 Electronic Engineering
 Electronic and/or Computer Engineering
 Engineering with Management

Columbia Engineering MS Course

Civil Engineering
 Mechanical Engineering
 Biomedical Engineering
 Electrical Engineering
 Computer Engineering
 Operations Research

If you're going to go to Notre Dame on your study abroad my advice is: be there for first semester or the full year (everything happens first semester), live on campus, join as many clubs as you want, do one class that is completely different than your degree each semester, go to as many football games as you can, make use of the Notre Dame connections, use the fact that you are Irish (they love the Irish), make the most of every situation/opportunity, keep making friends and ask loads of questions.

Katie Kilroy, International exchange

Application Process:

Students will be required to have achieved an annual average mark of at least 60% (equivalent to a GPA of 3.2) in Year 3 (for approval of their application) and in Year 4 (for admission to Columbia).

Step	Timeline	Responsible Party
1. Students submit an expression of interest to the Trinity School of Engineering for approval.	October in Year 4	Trinity School of Engineering
2. Approved students will submit an application for admission directly to Columbia, including all required documents for consideration and following the appropriate admissions procedures.	February in Year 4 (Columbia Priority Deadline)	Trinity students
3. Columbia will evaluate each application and eligible students will receive an acceptance pending their final Year 4 exam results.	March / April in Year 4	Columbia
4. Final Year 4 exam results will be submitted to Columbia for verification.	June following completion of Year 4	Trinity School of Engineering
5. Final Columbia results reported back to Trinity for conferring of MAI degree.	Upon completion of MS course at Columbia	Columbia

Fees and scholarships:

Tuition is billed per credit hour, with full time enrollment being 12 or more credits per semester and total fees vary based on enrollment status, regardless of citizenship or residency status. Students in the program will be eligible to apply for financial aid at Columbia University.

Contact details:

Email: internationaleng@tcd.ie and Meahgan Jameyson - mj2904@columbia.edu

9. Useful links and contacts

Students can visit

<https://www.tcd.ie/Engineering/international/study-abroad/outgoing/>

or contact their Academic exchange Coordinators at the School of Engineering:

Global officer	Ms. Chloe O Connor (internationaleng@tcd.ie)
Academic coordinators	
Civil, Structural and Environmental	Prof. Sara Pavia (pavias@tcd.ie)
Electronic & Electrical	Prof. Arman Farhang (arman.farhang@tcd.ie)
Computer Engineering	Prof. Andrew Butterfield (andrew.butterfield@tcd.ie)
Biomedical	Prof. Mark Ahearne (ahearnem@tcd.ie)
Mechanical & Manufacturing	Prof. Tim Persoons (PERSOONT@tcd.ie)

→ Do you wish to be put in contact with other Trinity students who are going on a mobility at the same time as you, or with students who went on an academic exchange in the past?

Please contact your Global Officer.





*A must have experience for any student.
Stepping outside really shows you the
possibilities that are out there! Don't be too
caught up by the rankings, at the end of the day
the experience is what you make of it!*

Keshav Sapkota, Unitech



www.tcd.ie /Engineering/