



University College Dublin
An Coláiste Ollscoile, Baile Átha Cliath



Engineering Programme Briefing – DN150

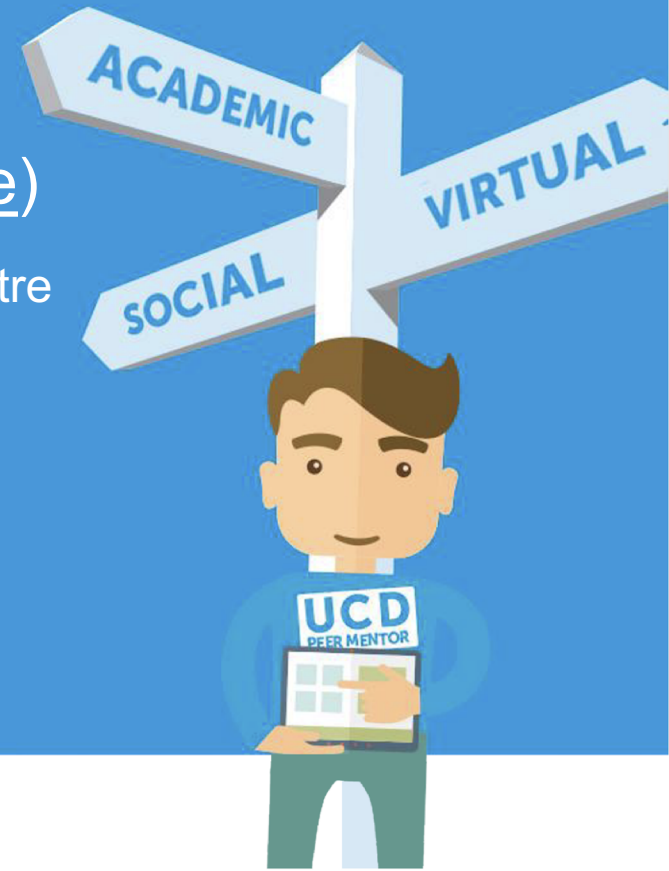
Programme Directors

Dr. Neal Murphy (neal.murphy@ucd.ie)

Room 313, Engineering and Materials Science Centre

Dr. Muhammad Gulzari
(muhammad.gulzari@ucd.ie)

Room G77, School of Civil Engineering, Newstead
Building



Good to know

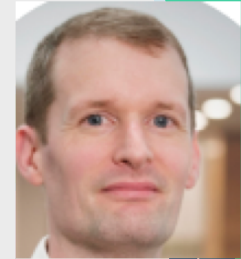
Professor Aoife Ahern

College Principal, College of Engineering
and Architecture and Dean of Engineering (appointed 2019)



Assoc. Prof. Daniel Mc Crum,

Associate Dean of Engineering
School of Civil Engineering



Sue Philpott, College Office Director

Debra Heeney, Programme and Operations Manager

Seán Kenny , Programme Manager

Daniel Earls , Programme Manager

Janine Smart, Senior Executive Administrator

Catherine Bodey, Senior Executive Administrator

Stage One Programme Director (incoming)

Dr. Muhammad Gulzari, Lecturer/Assistant Professor, School of Civil Engineering will be commencing the role of Stage One Director (replacing Dr Neal Murphy) from September 2025



UCD New Students website

- Brightspace Module: Introduction to UCD
- Welcome to UCD Guide
- How-to Guide Videos
- Orientation Timetables

The screenshot shows the UCD New Students website for 2025. The header includes the UCD logo, the text "UCD New Students" and "Mic Léinn Nua UCD", and a navigation menu with links: Accommodation, Getting to UCD, Getting Around UCD, Orientation, Social, Sport & Wellbeing, Current Students, Contact, Explore UCD, and UCD Connect. The main banner features a photo of two students and the text: "UCD NEW STUDENTS 2025. We are delighted you're joining UCD's vibrant community! Orientation activities will take place on campus from 3-5 September 2025. As you embark on this exciting journey with us, know that we're here to guide you every step of the way." Below the banner are four colored boxes: "Orientation" (blue with a compass icon), "Peer Mentoring" (yellow with a group of people icon), "Virtual Tour" (blue with a person icon), and "Social, Sport & Wellbeing" (yellow). A chatbot window for "Rua, the Student Desk AI Assistant" is visible in the bottom right corner.

UCD New Students
Mic Léinn Nua UCD

Accommodation Getting to UCD Getting Around UCD Orientation Social, Sport & Wellbeing Current Students Contact Explore UCD UCD Connect

UCD NEW STUDENTS 2025

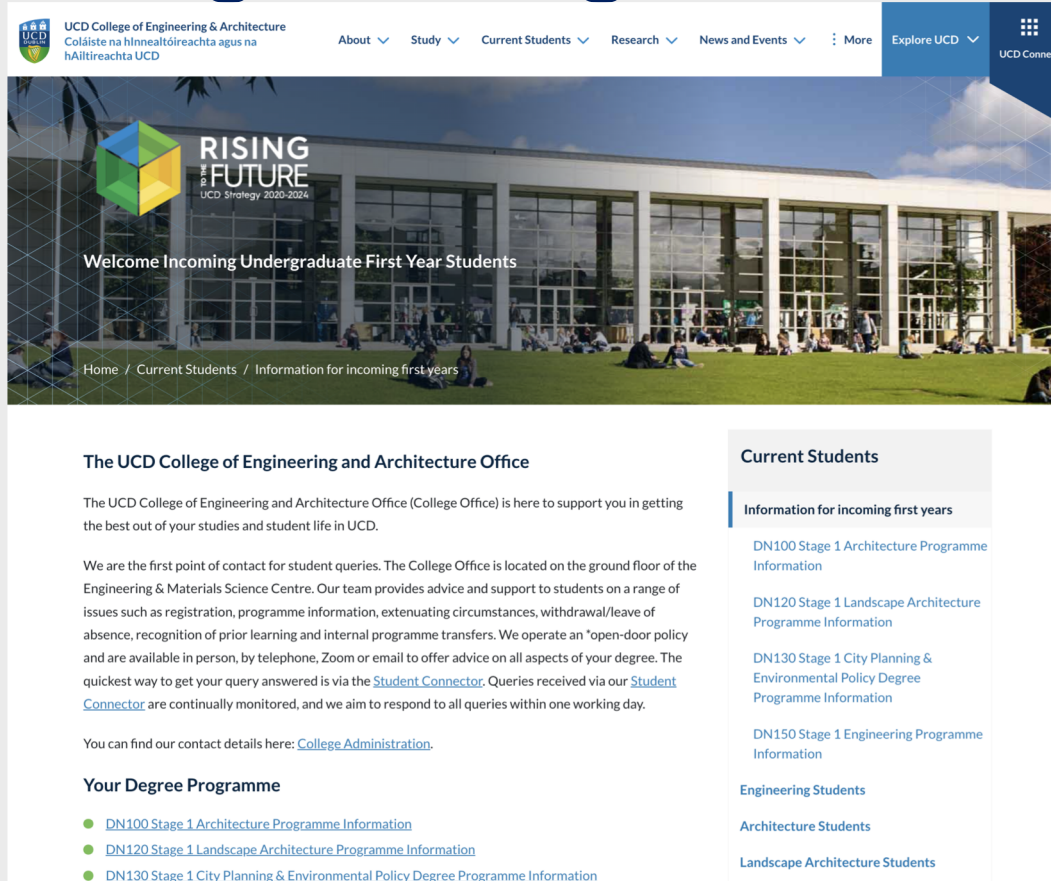
We are delighted you're joining UCD's vibrant community! Orientation activities will take place on campus from 3-5 September 2025. As you embark on this exciting journey with us, know that we're here to guide you every step of the way.

HOW-TO VIDEO GUIDES
ORIENTATION TIMETABLES

Orientation Peer Mentoring Virtual Tour Social, Sport & Wellbeing

Hi I'm Rua, the Student Desk AI Assistant. Before we get started, it's helpful to know: - I'm an AI Assistant, not a human! - To keep your data safe, don't tell me any personal info, for example: email address, mobile number, student number, full name, etc. - I can answer general queries. Use other contact methods <https://www.ucd.ie/students/studentdesk/contact/> to talk to a human colleague.

Dedicated Stage One Engineering Website:



UCD College of Engineering & Architecture
Coláiste na hInnealtóireachta agus na hAiltireachta UCD

About Study Current Students Research News and Events More Explore UCD UCD Connect

RISING THE FUTURE
UCD Strategy 2020-2024

Welcome Incoming Undergraduate First Year Students

Home / Current Students / Information for incoming first years

The UCD College of Engineering and Architecture Office

The UCD College of Engineering and Architecture Office (College Office) is here to support you in getting the best out of your studies and student life in UCD.

We are the first point of contact for student queries. The College Office is located on the ground floor of the Engineering & Materials Science Centre. Our team provides advice and support to students on a range of issues such as registration, programme information, extenuating circumstances, withdrawal/leave of absence, recognition of prior learning and internal programme transfers. We operate an "open-door policy" and are available in person, by telephone, Zoom or email to offer advice on all aspects of your degree. The quickest way to get your query answered is via the [Student Connector](#). Queries received via our [Student Connector](#) are continually monitored, and we aim to respond to all queries within one working day.

You can find our contact details here: [College Administration](#).

Your Degree Programme

- [DN100 Stage 1 Architecture Programme Information](#)
- [DN120 Stage 1 Landscape Architecture Programme Information](#)
- [DN130 Stage 1 City Planning & Environmental Policy Degree Programme Information](#)

Current Students

Information for incoming first years

- [DN100 Stage 1 Architecture Programme Information](#)
- [DN120 Stage 1 Landscape Architecture Programme Information](#)
- [DN130 Stage 1 City Planning & Environmental Policy Degree Programme Information](#)
- [DN150 Stage 1 Engineering Programme Information](#)

- [Engineering Students](#)
- [Architecture Students](#)
- [Landscape Architecture Students](#)

www.ucd.ie/eacollege/currentstudents/informationforincomingfirstyears/



The college Connector

www.ucd.ie/eacollege/connector/

UCD Eng Arch Office Student Connector

Please provide the information as requested below and your query will be submitted directly to the UCD Engineering & Architecture Office.

You'll receive an email confirmation including details of when you can expect a reply.

Which of the following are you? *

Next Page



Important Dates!

Fee Payment deadline (first instalment):

Sunday, September 7th

First day of lectures:

Monday, September 8th

Online Registration closes

Friday, September 19th

***Deadline for dropping unwanted Autumn Modules**

Friday, 31 October

*Any Autumn trimester modules dropped after that date will be subject to fees and will appear on your academic record.



Stage 1 Engineering DN150

2025-26 Academic Year Autumn Trimester

- Labs/Tutorials pre-selected for Autumn
- No registration to Elective in Autumn Trimester
- Modules for the **Autumn** trimester:
 - CVEN10040 – Creativity in Design
 - CHEN10040 - Intro. to Eng. Computing
 - CHEM10030 - Chemistry for Engineers
 - PHYC10150 - Physics for Eng. I
 - EEEN10010 - Electronic & Elec. Eng. I
 - MATH10250 - Intro. To Calculus for Eng.



Timetable know how

- Weekly on campus lectures **but** lecture timetables can vary from week to week!
- Make sure to check your timetable in **SISWeb** before you commence your studies.
- Keep an eye on your **UCD Connect email** for updates!

Assessment

Final Exam in 5 modules:

- CHEN10040 - Intro. to Eng. Computing (worth 50%)
- CHEM10030 - Chemistry for Engineers (worth 60%)
- PHYC10150 - Physics for Eng. I (worth 60%)
- EEEN10010 - Electronic & Elec. Eng. I (worth 65%)
- MATH10250 - Intro. To Calculus for Eng. (worth 70%)

All modules have a substantial amount of continuous assessment spread over the the trimester (Design Projects, Lab Reports, Computer Programs, MCQ Quizzes, etc.)

Assessment continued

Continuous Assessment:

Takes place in all modules over the Trimester,
e.g MCQ's; in-class tests/quizzes; lab practical
and open book

Exams at end of Autumn Trimester

Revision week: *01 December - 05 December*

Most modules use **2-hour examinations**

Exams take place: *08 December to 20 December*
inclusive

Exams at end of Spring Trimester

Fieldwork/Study period: *10 March to 23 March*

Revision week: *27 April to 01 May*

Exams take place: *02 May to 16 May*



Stage 1 Engineering DN150

2025-26 Academic Year Spring Trimester

Spring Trimester Cores

<u>MATH10260</u>	<u>Linear Algebra for Engineers</u>	Spring
<u>MEEN10030</u>	<u>Mechanics for Engineers</u>	Spring
<u>MEEN10050</u>	<u>Energy Engineering</u>	Spring
<u>PHYC10160</u>	<u>Physics for Engineers II</u>	Spring

Stage 1 Engineering DN150

2025-26 Academic Year Spring Trimester

Pick one Option from list of 4

<u>CHEN10010</u>	<u>Chemical Engineering Process Principles</u>	Spring
<u>COMP10060</u>	<u>Computer Science for Engineers I</u>	Spring
<u>CVEN10060</u>	<u>The Engineering and Architecture of Structures 1</u>	Spring
<u>EEEN10050</u>	<u>Introduction to Biomedical Eng</u>	Spring

One free Elective (taken from within or outside Engineering).
Practicals / Tutorials: You need to register to the associated practical/tutorial sessions to suit your timetable.



Selecting Option Modules

Stage 1 Option Modules Assistance

Option Module	What will be covered?	Who should take this?
EEEN 10050 Introduction to Biomedical Engineering	This module will introduce students to the subject area of biomedical engineering and the basic principles of physiology, biomechanics, medical devices, tissue engineering, biomedical sensors, electrophysiology and clinical engineering.	Strongly recommended for student's heading towards Biomedical Engineering .
CHEN 10010 Chemical Engineering Process Principle	This module introduces the principles and techniques that are used in the analysis of chemical and biochemical engineering processes.	Strongly recommended for student's heading towards Chemical & Bioprocess Engineering .
COMP 10060 Computer Science for Engineers I	This module provides students with a formal and structured introduction to computer programming using the C programming language, which underpins the Windows, Linux and MacOS operating systems in addition to a wide range of embedded systems in everyday products.	Strongly recommended for students heading towards Mechanical, Electrical & Electronic Engineering - useful for all Engineering students.
CVEN 10060 Engineering and Architecture of Structures	This module provides students with a core understanding of what makes buildings, and other structures, stand up. Engineering and Architecture students will work in together in groups to explore these issues.	Strongly recommended for student heading towards Civil Engineering or Structural Engineering with Architecture .

Select one Elective or Additional Option per below

<u>BSEN10010</u>	<u>Biosystems Engineering Design Challenge</u>	Spring
<u>BSEN10020</u>	<u>How Sustainable is My Food?</u>	Spring
<u>CVEN10050</u>	<u>Challenges in Civil Engineering</u>	Spring
<u>DSCY10060</u>	<u>Energy, Climate Change & Policy</u>	Spring
<u>DSCY10070</u>	<u>Materials in Society</u>	Spring
<u>EEEN10020</u>	<u>Robotics Design Project</u>	Spring

Creativity in Design Module

Materials needed for First Lecture

Individual Requirements

- Creativity kit, excluding object for film production in **Library Union Shop**, excluding object for sketch study
- Drawing Pad – A3 Cartridge (pages approx. 115 g/m² but not less than 100g/m²)
- A5 Sketch Book (pages approx. 100 g/m²)
- Pencils – B, 2B
- Pencil sharpener
- Set square – 30°/60° 300mm side with mm gradation measurement
- Eraser
- Non-permanent marker (med. black)
- A small-ish inorganic object for sketch study (e.g. corkscrew, tin-opener, pepper mill, small hand tool, scissors)

Creativity in Design Module

Group Requirements

- Additionally, for your Group work, the following equipment may be helpful for prototype creation* and can be purchased from the **Library Union Shop** for €45.
- *This list is not exhaustive, and some items may be replaced with other common household items
- Coloured markers – pack of 5 Faber Castell, Staedtler or Sharpie fine nib
- Plasticine – One 500g pack variety of colours
- Coloured A4 Card – 250g/m2 variety of colours (5 colours, 10 sheets of each colour)
- Post-it blocks – pack 5 colours, small square (76mmx76m)
- Post-it blocks – pack 5 colours, rectangular (76mmx127mm)
- Scissors - 1 stainless steel
- Masking tape – 1 roll
- Stapler (1) and staples
- Rainbow craft sticks – small sticks pack of 100, large sticks pack of 50

Chemistry Labs

All students must complete a health & safety training session before commencing their scheduled laboratories.

Recommended laptop specifications For Stage One Students

Should I buy a new laptop? No, If you have an existing laptop or can use an existing laptop for a minimum of 30 hours per week it will probably be fine for the modules in Stage 1. Start using what you have and upgrade later if necessary, that way you have a better laptop later in the programme, when you need it most.

For stage 1 students some modules may have components which are online. Some of these will be pre-recorded and can be watched in your own time. For others you will be expected to join a class, tutorial or practical online at a specific time therefore having a working laptop will make this easier for you.

The software you will use is available free online or through UCD and consists of:

- Excel/Word MS Office (Available through UCD Connect)
- Antivirus (Available through UCD Connect)
- Python/Matlab (Available through UCD Connect)
- Video Conferencing software e.g. Zoom (Available online)
- Web Browser e.g. Chrome (Available online)

It is recommended that your laptop has:

- Camera, Microphone, WiFi, Speakers/headphone connectivity

Can I use a tablet? No, not as your primary IT device. It will take longer to carry out assignments using a tablet.



Module Levels

Level Summary Description

0	Foundation/Access
→ 1	Introductory (e.g...)
2	Intermediate
3	Degree
4	Masters
5	Doctoral

Credits and Workload

- The **CREDIT** is a unit of currency, part of the **European Credit Transfer System** (ECTS), which is designed to allow movement of students between European Universities.
- Each 5-credit module corresponds to about **100-125 hours of student effort** (including attendance at lectures, tutorials, practical work, and time spent on assignments, study, examinations, etc.)
- Taking six 5-credit modules over a 15 week trimester (12 weeks teaching, 1 week revision, 2 weeks exams) implies an **average of 40 to 50 hours per week** – of overall student effort.



Essential Advice!

- **Attend Lectures & Tutorials.**
- **Aim for an 'A'** in Lab Reports & Assignments.
- **Be Organized** – have a plan & stick to it.
- **Download** recent Exam Papers and use these as a study guide.





- You **MUST PASS every module!**
- Resit Exam in Autumn, Spring or Summer – check Module Descriptor!

Module Grades

www.ucd.ie/students/exams/gradingandremediation/understandinggrades

MODULE GRADES		
MODULE GRADE	GRADE POINT	DESCRIPTION
A+	4.2	Excellent
A	4.0	
A-	3.8	
B+	3.6	Very good
B	3.4	
B-	3.2	
C+	3.0	Good
C	2.8	
C-	2.6	
D+	2.4	Acceptable
D	2.2	
D-	2.0	
FM+	0.0	Fail
FM	0.0	
FM-	0.0	
NM	0.0	No grade - work submitted did not merit a grade
ABS	0.0	No work was submitted by the student or the student was absent from assessment

Grade Point Average (GPA)

- At the end of a Stage, all the grade points are averaged to get a **Grade Point Average**.

'Honours' Grades for a Degree

- Degree 'Honours' classification is based on weighted calculation:

Weighted by a factor of 7 for the final Stage and weighted by a factor of 3 for the penultimate Stage.

However, your performance in all Stages is important for progression and your overall degree GPA!

'Honours' Grades for a Degree

GPA	Award
> 3.68	First Class honours
3.08 to 3.67	Second Class Honours, Grade 1
2.48 to 3.07	Second Class Honours, Grade 2
2.00 to 2.47	Pass

Becoming a Chartered Engineer (C.Eng)

- Complete a degree programme which is accredited by *Engineers Ireland* *, and
- Have a minimum of four years postgraduate training and engineering experience

*Graduates of accredited programmes are recognised in 29 European countries and are accepted as equivalent by professional bodies in Australia, Canada, Hong Kong, Japan, New Zealand, South Africa, UK and USA.

Chartered Engineers of the Future

- The registered professional title of Chartered Engineer is recognised internationally.
- *Engineers Ireland* regulations:

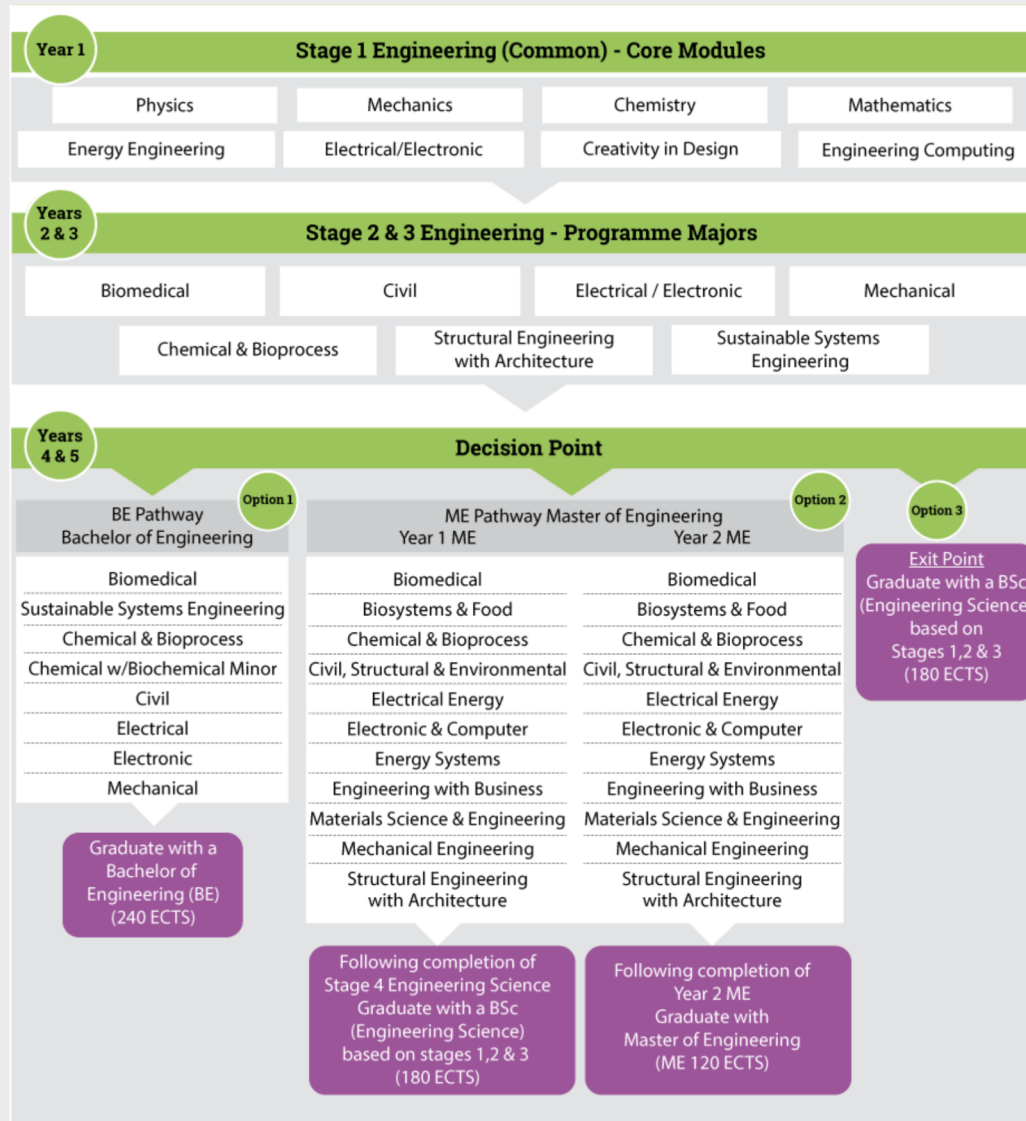
Engineers graduating from 2013 onwards will need a 5-year accredited Master degree (or equivalent).

UCD Engineering Degree Programmes

- **4-Year BE Degree**
- **5-Year BSc + ME Degrees (with specialisations)**
Graduate with BSc (Engineering Science) + ME
(Master of Engineering) degrees
Accredited professional engineering qualification
- **5-Year BE + ME**
Graduate with BE + ME Chemical & Bioprocess Engineering
- **5-Year BSc + ME (Structural Engineering with Architecture)**
Graduate with BSc (Engineering Science) + ME
(Master of Engineering) degrees
Accredited Professional Engineering qualification



Engineering Pathways



BE Degrees Available (for 2025 entrants)

- Biomedical Engineering
- Chemical and Bioprocess Engineering
- Civil Engineering
- Electrical Engineering
- Electronic Engineering
- Mechanical Engineering
- Sustainable Systems Engineering

Study Abroad

Exchange opportunities are available in **Stage 3**, for a full year or one trimester, depending on the programme.

Requirements for Engineering Stage 1

- Complete Stage 1 with a minimum GPA of 3.00
- Earn 30 credits in Autumn Trimester of Stage 2 with minimum GPA of 3.00
- **No grade less than C- in any core module over those three Trimesters**

Study Abroad

- Arranged through UCD Global
www.ucd.ie/global
- Watch for information sessions this autumn
- **Erasmus exchange** to a university in another European country
 - So most lectures will be in the local language!
 - Recent exchanges to Paris, Lyon, Stuttgart
- **Non-EU exchange**
 - to a university outside Europe
 - to USA, Canada, China, Singapore, Australia, New Zealand
- The full details of the Exchange Rules can be found at:
<https://www.ucd.ie/eacollege/study/engineeringinternationalprogrammes/>



ME Degrees Available (for 2025 entrants)

- Biomedical Engineering
- Biosystems & Food Engineering
- Chemical & Bioprocess
- Civil, Structural & Environmental Engineering
- Electrical Power Engineering
- Electronic and Computer Engineering
- Energy Systems Engineering
- Engineering with Business
- Materials Science Engineering
- Mechanical Engineering
- Structural Engineering with Architecture



Which discipline should I choose?


- We will run Information Sessions later in the Autumn Trimester
- Introduction to the disciplines and course overviews
- Speakers (UCD Engineering Graduates) will describe their careers
- More sessions in the Spring Trimester - more details about the courses & you will meet a selection of students to tell you the 'Real Story'!

Introduction to UCD Library

[Explore Collections](#) [Use the Library](#) [Guides & Help](#) [Cultural Heritage](#) [Contact Us](#) [A-Z Index](#)

UCD LIBRARY


WHAT DO YOU NEED TO KNOW TODAY?



Welcome to UCD Library! With your Student UCARD you automatically have free access to all five of our libraries.

Library staff are here to assist you at every stage of your journey here at UCD. So if you need help, [just ask](#).

More information is available on the [Library Website](#), www.ucd.ie/library




Copy link

(A longer, more in-depth video is available on our [Tutorials & Guides](#) page).

Have a Question?

With our online [FAQs](#) you can use the search box to find answers, or explore by topic.



FAQ Topics:

[Admissions](#) [Alumni](#) [Archives/Special Collections](#) [Borrowing](#) [Catalogue/OneSearch](#) [Citing Sources](#) [EndNote](#)
[Exam Papers](#) [Fines](#) [Location/Directions](#) [Maps](#) [Off Campus Access](#) [Opening Hours](#) [PCs, Laptops, Printing & Wi-Fi](#)
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Welcome

[Getting Started...](#)

[Our Study Spaces](#)

[Tutorials and Guides](#)

[Library Student Guides](#)


Getting Started Links

- [Library Website](#)
- [Online Tools](#)
- [Booking a Study Seat](#)
- [How Busy is the Library?](#)
- [Five Locations](#)
- [Laptop Loans](#)
- [FAQs](#)

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Contact Us!

Chat with our helpful staff



phone us: 353 (0)1 716 7583

Have a comment or suggestion? Email us at libraryinfo@ucd.ie

Connect With Us!



Introduction to the Student Desk

<https://www.ucd.ie/students/studentdesk/>



Lines of Communication

- **UCD Connect email** is the primary channel for official UCD communications. You will have received information regarding your email account when offered your place in UCD.
- It is the responsibility of each student to regularly check their UCD Connect email account.
- When setting up your mail accounts change your password to something more secure.
- In email exchanges, always include your student ID otherwise it can delay your query.



Trust me I'm an Engineer!

