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WELCOME!

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EU Countries
Ireland
UK
France
Spain
Poland
Lithuania
Romania
Bulgaria
Croatia
Egypt

30 % Female

www.ucd.ie/students

Professor David FitzPatrick

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Background:
Bachelors - Mechanical Engineering
PhD - Orthopaedic Biomechanics

Industry
Medical Devices (Orthopaedic)
R&D – MNC – worldwide portfolio

Academia
UCD (Mechanical Engineering)

Currently:
Dean of Engineering
Principal, College of Engineering & Architecture

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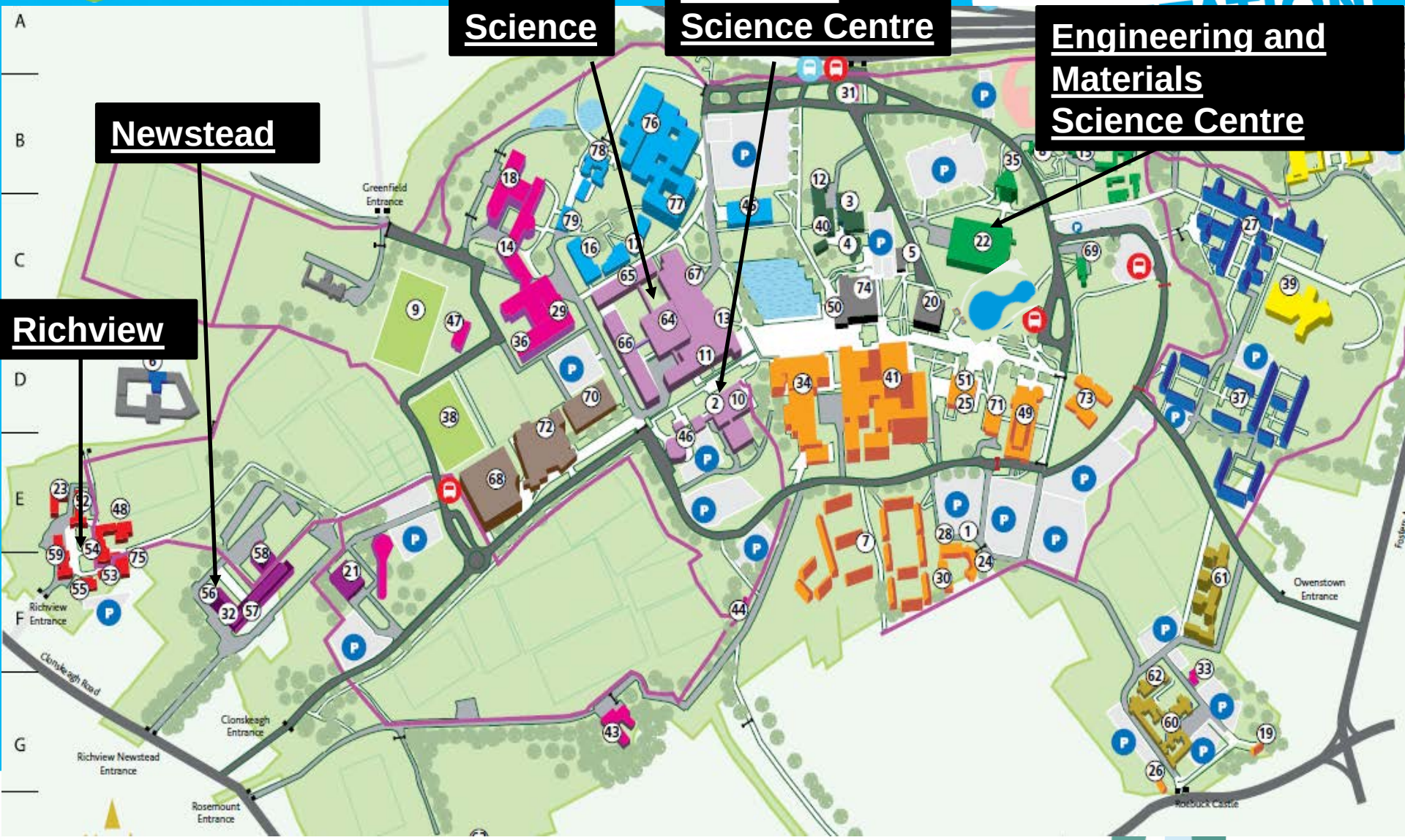

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What is Engineering?

FUN EVENTS

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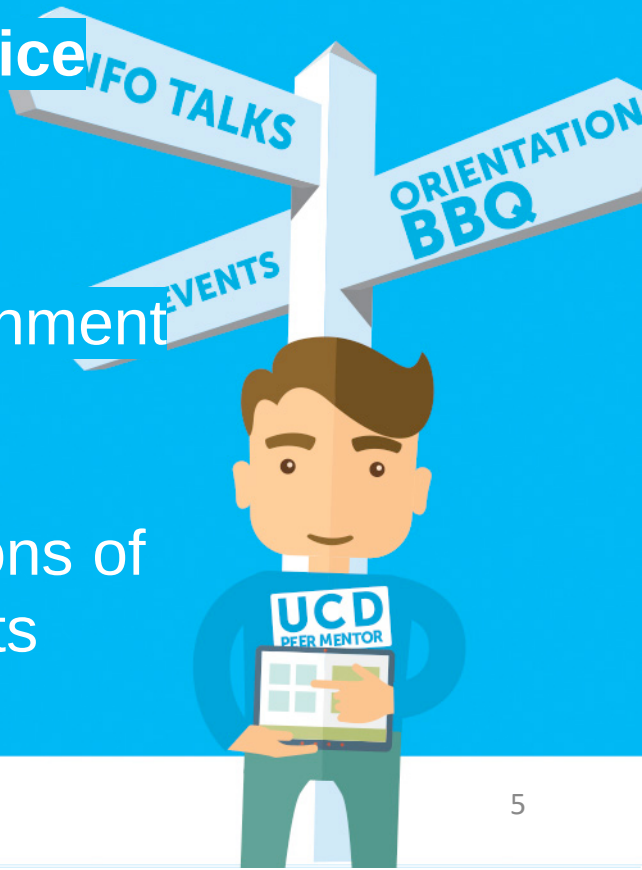
Technical Understanding

- A sound knowledge of disciplinary fundamentals
- A strong grasp of mathematics
- **The ability to apply theory in practice**
- Ability to be creative and innovative

Enabling Skills

- Work effectively in a business environment
- Communication skills
- Teamworking skills
- Business awareness of the implications of engineering decisions and investments



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Abilities & Attributes of Graduate Engineers

"Engineers must be able to **use science and mathematics in their thinking**"

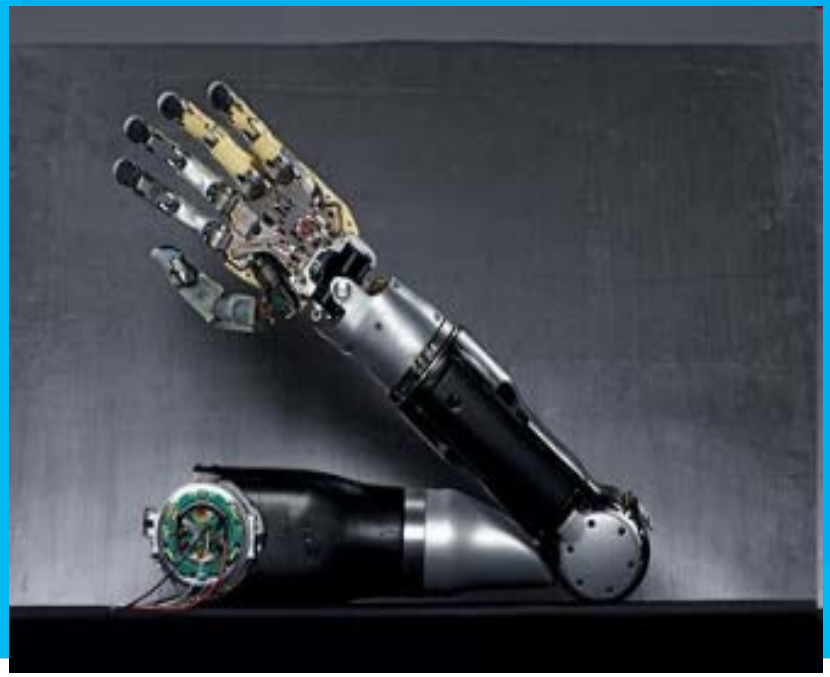
"An engineer's analytical thinking is framed by, and used in, **the service of practical ends**"

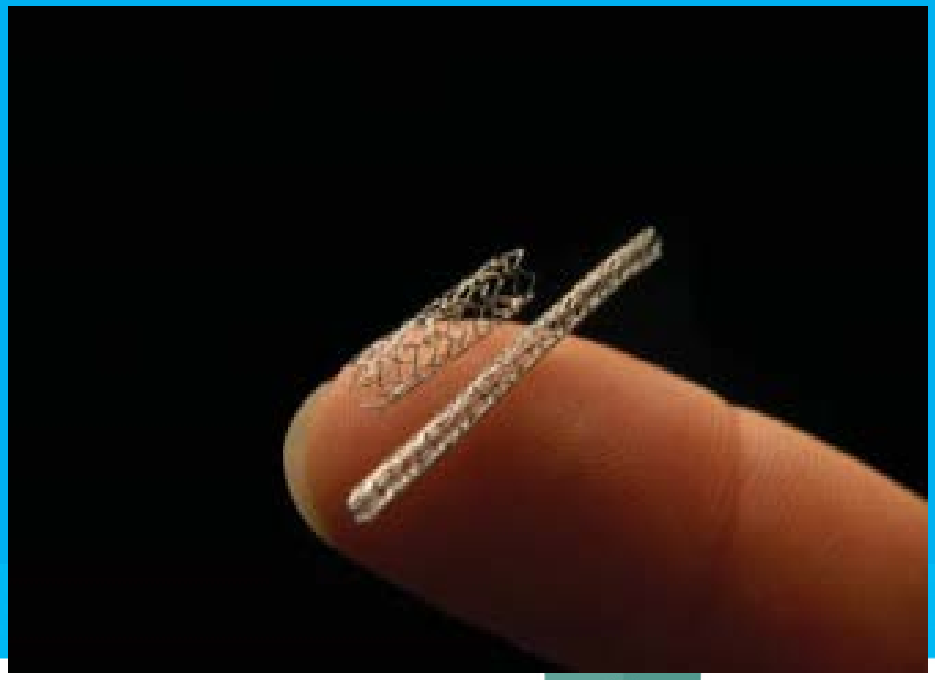
"The engineer needs '***creativity***'.. and to exhibit '**leadership**'.

***Educating Engineers: Designing for the Future of the Field**, Sheppard et al.

Biomedical Engineering

Biomedical Engineering involves applying traditional engineering methods and techniques to solve problems in biology and medicine, and advance healthcare.





Chemical & Bioprocess Engineering

Chemical & Bioprocess Engineers are fundamentally interested in transformations (e.g. the transformation of crude oil into petrochemicals or the conversion of intermediates (chemicals) to pharmaceuticals) and how such transformations can be realised on a large scale through research, design, construction and operation.

Civil/Structural Engineering

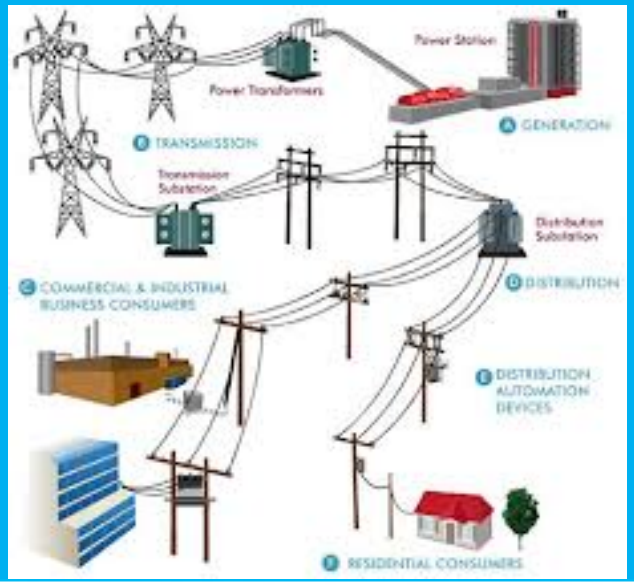
Civil/structural engineers design, build, manage and operate the infrastructure around us in a way that is sustainable and ethical - impacting how and where we live, work, travel & enjoy good health.

Electronic & Computer Engineering

Electronic Engineering is concerned with the design of circuits and systems (both hardware and programming/software) that underpin the on-going revolution in mobile communications, internet and digital media.

Electrical Engineering

Electrical Engineering is concerned with the energy uses of electricity and focuses on the generation, transmission and final use of the electricity that powers our world.

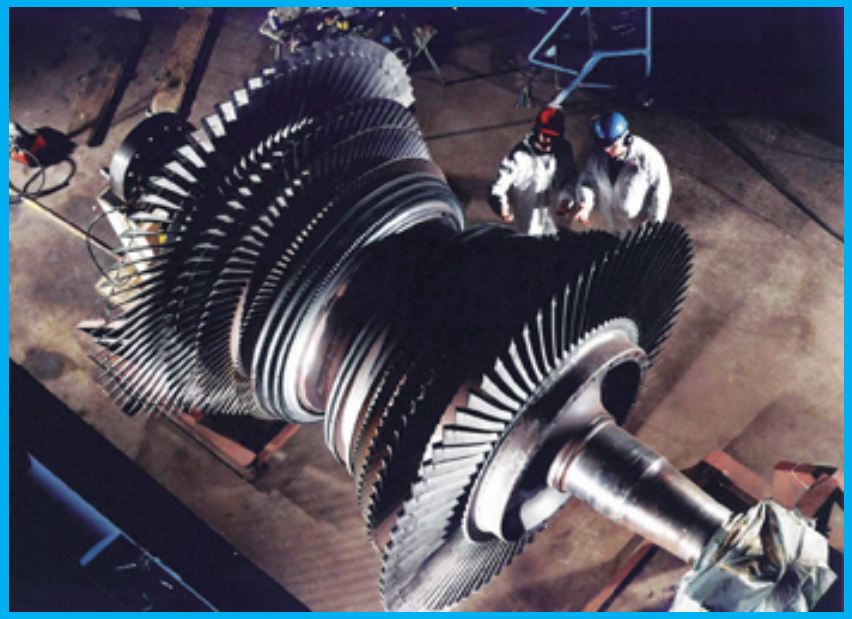


Energy Systems Engineering

Energy Systems Engineers work on finding and implementing solutions to the economic and environmental challenges facing the energy systems of different nations. All energy systems not just renewables.

Mechanical Engineering

Mechanical Engineering is concerned with the design, manufacture, operation and testing of components, devices or systems.



Structural Engineering with Architecture

Structural Engineering with Architecture is designed to give engineers a full understanding and appreciation of the architectural profession, coupled with the solid fundamentals of the engineering degree.

Studying UCD Engineering

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Stage 1

- 'Common' Structure
- Select Discipline Stream (May 2019)

Stages 2 & 3

- Discipline Major Stream
- Decision to Enter ME or BE stream (May 2021)

Stage 4

- BE Route
- Graduate BE (Sept 2022)

Stage 5

- ME Route
- Graduate ME (Sept 2023)

How wide is the range of UCD Engineering Degree options?

Biomedical Engineering

Chemical & Bioprocess Engineering

Civil, Structural & Environmental Eng

Electrical Energy Engineering

Electronic & Computer Engineering

Engineering with Business

Structural Engineering with Architecture

Biosystems & Food Eng

Civil Engineering

Electrical Engineering

Electronic Engineering

Energy Systems Eng

Mechanical Engineering

Materials Science & Eng

Optical Engineering

What will I study in First Year?

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Core Subjects:

- Science - Physics & Chemistry
- Mathematics
- Energy Engineering
- Mechanics
- Electrical/Electronic Engineering
- Creativity in Design

Engineering 'Option' and 'in-programme' electives allow you to build your knowledge base toward Stage 2 and beyond

How will I learn?

- **Lectures**
  Fundamentals (physics, chemistry, mathematics), application to engineering, national and global context
- **Laboratories, Design Exercises & Project Work**
  "hands-on" experience, conducting experiments, making measurements with a range of instrument types, analysis / interpretation of data, presentation/communication of results
- **Tutorials**

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UCD Engineering Study Abroad

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Exchange Opportunities

Available - Stage 2 and Stage 3

Requirements – Pass all Core modules with
Minimum Grade = C
Minimum Stage GPA = 3.08

Who employs UCD Engineering Graduates?

UCD STUDENT CHARTER

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The **Student Charter** summarises the **aspirations** and **expectations** for **all members** of our University community.

UCD STUDENT CHARTER

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The **Charter** sets out the **roles** and **responsibilities** of the various groups within our University and outlines what **students can expect** from their University and what the **University can expect** from its student members.

Continuation Procedure

Intervention 1

- **Academic Warning**
  - ***Failed to achieve 2/3 of the available semester credits****
    - Student receives written notification of Academic Warning
    - Student required to meet with nominated staff member to devise a plan of action, agreeing specific

Intervention 2

- **Academic Probation**
  - ***Student on Academic Warning fails to meet specified targets within approved timeframe***
    - Student receives written notification of Academic Probation
    - Student required to meet with Dean or Dean's nominee to devise a plan of action, agreeing specific targets for passing modules within an approved timeframe

Intervention 3

- **Continuation Consideration**
  - ***Student on Academic Probation for a period of two consecutive semesters subsequent to the approved timeframe***
    - The governing board may recommend discontinuation to The Standing Committee for Continuation/Re-admission

The Standing Committee for Continuation/Re-admission

- ***Student will be notified in writing of the outcome of the committee's decision***
- Student permitted to continue in programme or
- Student excluded from programme

Based on final published results for semester

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1. Introduction & Welcome
   Professor David FitzPatrick,
   Dean of Engineering

2. **Programme Office**
   Debra Heeney,
   Programme Manager, Engineering

3. Your Student Adviser, Colleen Doyle

4. Student Union
   - Melissa Plunkett

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Engineering and Architecture Programme Office

Room 122, First Floor, Engineering and Materials Science Centre

- **Ms Debra Heeney – Engineering Programme Manager**
  debra.heeney@ucd.ie – 01 716 1874
- **Ms Caroline McCann – Programme Office Administrator**
  caroline.mccann@ucd.ie – 01 716 1868
- **Ms Amy McDonald- Programme Office Administrator**
  amy.mcdonald@ucd.ie – 01 716 1754
- **Ms Sue Philpott – Programme Office Director**
  sue.philpott@ucd.ie 01 – 716 1864

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ONE STOP SHOP!!!!

If we don't know
we can't help.

Please contact the Programme Office

Email: eng.arch@ucd.ie

Website:

http://www.ucd.ie/eacollege/study/currentstudents/informationforincomingfirstyears/

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What can we help you with?

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- **Registration Queries**
  - » Online registration queries
  - » What option do I choose?
  - » Time conflicts
  - » Capacity issues
- **Examination Process**
  - » General enquiries about exams
  - » What if I fail?
  - » Extenuating Circumstances & Medical Certificates
- **Student Support**
  - » Academic Advice, e.g. Leave of Absence, reduced workload
  - » Pastoral Care

UCD College of Engineering & Architecture Programme Office Registration Issue Form

Your query is important to us so please bear with us as we are experiencing high volumes of student queries at present.

Please complete this issue form giving us details of your query and we will endeavour to resolve it for you as soon as possible. Please wait for a response and do not send the query to multiple members of staff as this will result in a slower service to you and other students and possible duplication of work.

Thank you!

*Required

Full Name *

Your answer

UCD Student Number *

Your answer

Programme Area *

Please select one option

Choose

Type of student *

Please select one option

Choose

What do you need help with? *

Please select as appropriate

Choose

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Registration Made Easy Lab
Help is available!

****

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Pop down to the **Registration Made Easy Lab,**

Mon to Fri. **3rd to 7th September,** from 09:00 to 17:00

Staff will be located in Room **A105** on the first floor of the **Newman Building** during Orientation week, and at the Student Desk after that

****

Core		6 CORE MODULES - SEMESTER 1	
Semester 1	Module Code	Module Title	Credits
Sem 1	CHEM 10030	Chemistry for Engineers	5 Credits
Sem 1	CVEN 10040	Creativity in Design	5 Credits
Sem 1	EEEN 10010	Electronic & Electrical I	5 Credits
Sem 1	MATH 10250	Introductory Calculus for Engineers	5 Credits
Sem 1	CHEN 10040	Introduction to Engineering Computing NEW CORE MODULE!!	5 Credits
Sem 1	PHYC 10150	Physics for Engineers I	5 Credits
Core	Module Code	4 CORE MODULES - SEMESTER 2	Credits
Sem 2	MATH 10260	Linear Algebra for Engineers	5 Credits
Sem 2	PHYC 10160	Physics for Engineers II	5 Credits
Sem 2	MEEN 10050	Energy Engineering	5 Credits
Sem 2	MEEN 10030	Mechanics for Engineers	5 Credits

Option – Pick 1

Options	Select 1 Option Module:		
Semester	Module Code	Module Title	Credits
Sem 2	BMOL 10030	Understanding Human Disease	5 Credits
Sem 2	CHEN 10010	Chem Eng Proc Principles	5 Credits
Sem 2	CVEN 10060	Engineering and Architecture of Structures	5 Credits
Sem 2	COMP 10060	Computer Sci for Engineers I	5 Credits

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Elective – Pick 1

IN-PROGRAMME ELECTIVES – PLEASE SELECT 1 ELECTIVE MODULE:			
Sem 2	BMOL 10030	Understanding Human Disease	5 Credits
Sem 2	BSEN 10010	Biosys Eng Design Challenge	5 Credits
Sem 2	CHEN 10010	Chem Eng Proc Principles	5 Credits
Sem 2	CVEN 10050	Introduction to Civil and Environmental Engineering	5 Credits
Sem 2	COMP 10060	Computer Sci for Engineers I	5 Credits
Sem 2	EEEN 10020	Robotics Design Project	5 Credits
Sem 2	CVEN 10060	Struct: Eng & Arch	5 Credits
Sem 2	DSCY 10060	Energy, Climate & Policy	5 Credits
Sem 2	DSCY 10070	Materials in Society	5 Credtis

Language Electives

At the Applied Language Centre

Arabic | Chinese | English | French | German | Italian | Japanese | Russian | Spanish | Swahili

We also offer Irish Sign Language

Each elective is worth 5 credits

Structured electives are also available in Applied French, German, Japanese and Spanish

Small group teaching (between 14-18 people per class) offers a personal experience

Our teachers are all either native or near-native speakers of their language

Our flexible timetable enables students of all disciplines to find a class that suits their timetable

For more information: see www.ucd.ie/alc or email languages@ucd.ie

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REMINDER!!!

Module registration closes on Friday, 21st September 2018, 5pm.

Any Semester One module(s) not dropped by Friday, 21st September 2018 **will be subject to fees and will appear on your academic record.**

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- **Allocation of provisional electives takes place on the afternoon of Friday, 7th September and Saturday, 8th September. Check your UCD Connect email on Saturday, 8th September to see if you were successful in getting a place on your chosen module.**

- In-programme electives are allocated on first-come first-served basis.
- **Monday, 10th September 2018 - Lectures start 9am in A-H 2.18 SCH**

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Communications

UCD Connect email is the primary channel for official UCD communications.

It is the responsibility of each student to regularly check their **UCD Connect email** account

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Orientation for Tomorrow!

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Programme: Wednesday, 5th September 2018

B005, Health Sciences Building

08:40 President's Welcome – O'Reilly Hall

09:40 Programme Briefing - (B005, Engineering)

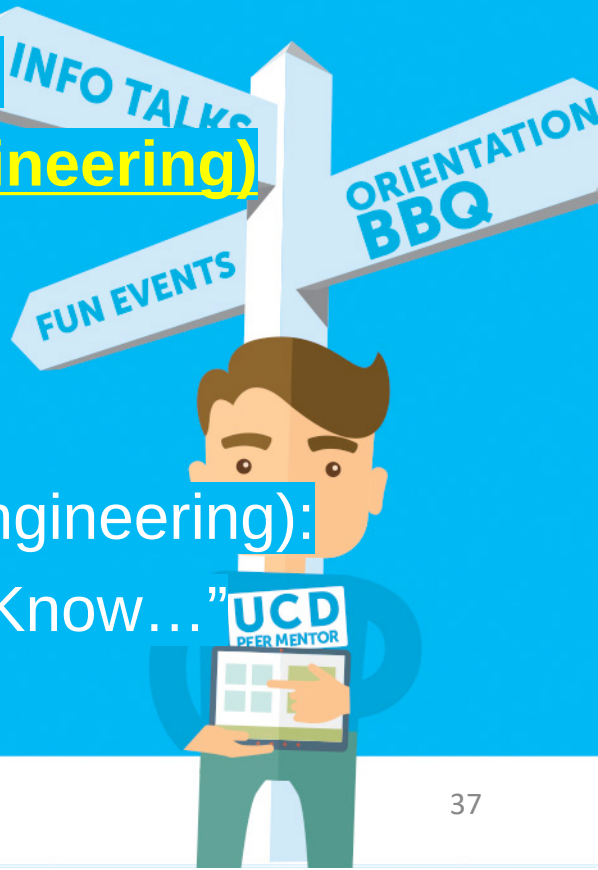
11:00 Meet Academic Mentor

12:10 Campus Tour

13:00 Lunch

14:00 Peer Mentor Presentation (B005, Engineering):

- "What First Years Really Need to Know…"



http://www.ucd.ie/students/newstudents/otimes.html

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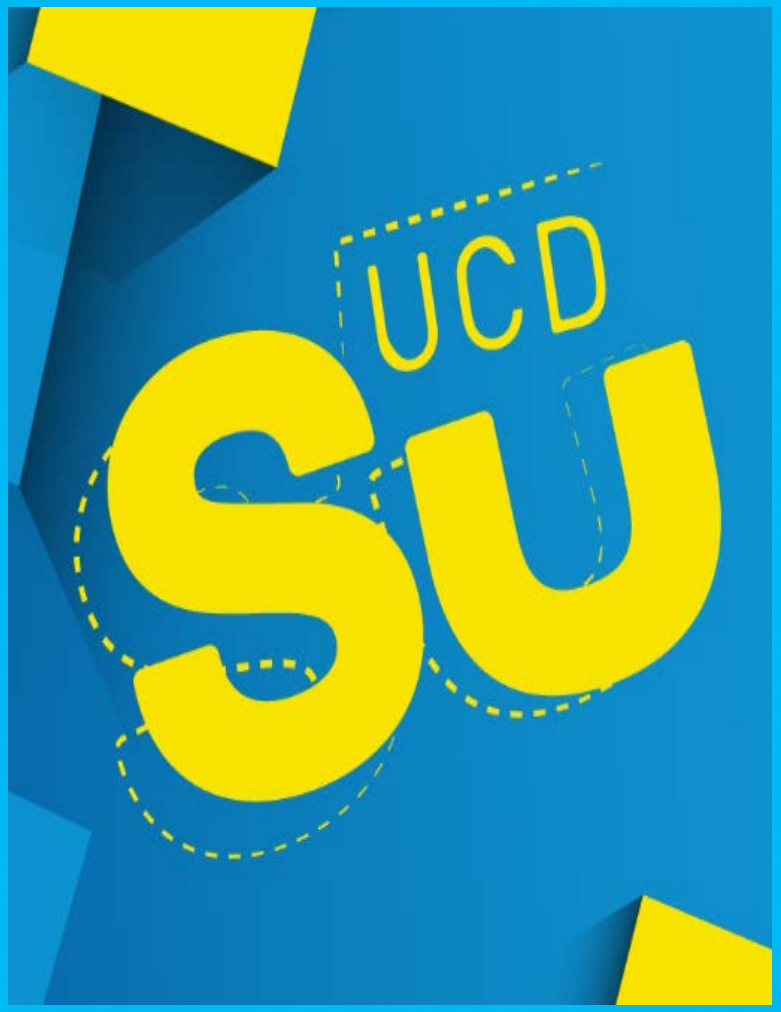

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