



UCC

University College Cork, Ireland
Coláiste na hOllscoile Corcaigh



SCHOOL OF ENGINEERING HANDBOOK

2024-2025

SCHOOL OF ENGINEERING

*Electrical Engineering Building,
UCC,
College Road,
Cork*

*Email: schoolofengineering@ucc.ie
Tel: (021) 490 2210*

FIRST YEAR ENGINEERING

UCC School of Engineering

Biomedical
Signal Processing
Research Award



The research of UCC Engineers in the INFANT Research Centre, led by Dr Gordon Lightbody and Professor Liam Marnane, has been honoured with a Collector's Stamp from the 'Irish Scientific Discoveries' series from An Post.

This work has also received the 2018 AI Award for the 'Innovative Application of Artificial Intelligence (AI) in an Academic Body'. This research uses signal processing and machine learning to create diagnostic tools for sick newborns. This work addresses clinical needs through automating the interpretation of EEG signals, enabling quicker diagnosis and treatment for newborns.

The School of Engineering at UCC is made up of four disciplines.

Civil, Structural and Environmental Engineering

The 4 year BE (Hons) and 5 year ME Degrees in Civil, Structural and Environmental Engineering at UCC are taught by the most highly qualified academic lecturers and professors in Ireland, many with vast international experience. The course is supplemented with teaching input by several very experienced local and national professional engineers who engage the students with real world engineering problems, such as the design of buildings, bridges, flood alleviation works, water and wastewater plants, etc.

Electrical and Electronic Engineering

Electrical and Electronic Engineering applies knowledge to develop a broad range of technological products and services that underpin modern society. These include the generation and distribution of electricity, the development of renewable energy systems, industrial automation and control, telecommunications including broadband and mobile systems and medical systems. BE Electrical and Electronic Engineering is a four-year professional engineering course designed to prepare students for employment in the electrical and electronic sectors of Ireland and abroad. It has a broad curriculum with strong practical content, including a work placement. It has an excellent record for graduate employment.

Energy Engineering

Do you want to address climate change, which is mainly caused by the burning of fossil fuels? UCC Energy

Engineering graduates are currently working in leadership roles in Ireland and abroad developing renewable energy and energy efficiency solutions. You will develop mathematical and problem-solving abilities and apply these to open-ended and challenging energy systems design problems, both on your own, and as part of a team.

This is the longest-established Energy Engineering degree programme in Ireland and the first accredited by Engineers Ireland. “This is a modern degree for a modern world that urgently needs higher quality design, more ethical engineering decisions and stronger environmental leadership.” -Vera O’Riordan (2015 – 2019).

Process and Chemical Engineering

Chemical Engineers are involved in the design and operation of processes involving transforming raw materials into useful products for the benefit of citizens and society in as safe and sustainable a manner as possible.

UCC’s Process & Chemical Engineering programme is fully accredited by both Engineers Ireland and the (UK based) Institution of Chemical Engineers (IChemE). Apart from a strong sustainability ethos, the programme also has strengths in areas such as pharmaceutical and biopharmaceutical engineering (with relevant industrial input and bespoke elective modules), on process and mechanical design, and in developing communications, presentation and teamworking skills. The programme also has a strong ethic around striving to deliver an excellent student all-round learning experience.

Modules

All first year engineering students take the same modules. You can get information on the modules you will be taking on the book of modules. Here you will get all the necessary information including module co-ordinators, forms of assessments, and mark breakdown.

Web: <https://www.ucc.ie/admin/registrar/modules/>. You can also access the college calendar for details on which modules you take in each year of study. Web: <https://www.ucc.ie/admin/registrar/calendar/>

Timetable and Building Codes

Students can view their programme timetable by typing <https://www.ucc.ie/en/build/roombookings/timetables/> directly into the address bar of your browser. Under the tab programmes search for your programme e.g. BEG1 and select this and “SEMESTER 1” “All Week” and “All Day”. All buildings have a building code, these codes can be found at <https://www.ucc.ie/en/students/campus/buildings/>.

More specific details on what will actually happen in each timetabled module slot is published on Canvas.

Allocation of Second Year Places

At the end of first year you will be expected to make a choice on which of the four disciplines you would like to continue on pursuing. There are a fixed number of places allocated to each discipline so students are allocated based on academic ranking. Priority is given to those who pass first year ahead of any repeats, therefore it is important to work hard in University and consistently well across the year, because if a student fails in summer or pass by compensation, especially if they would like to do an attractive programme, then they could be disappointed.

There will be an information session informing students of how to make their choice and the deadline for when the decision needs to be made. To help you make the decision the School of Engineering organises industry talks, in which guests from industry come in to give talks about their field. These will be communicated to you at the beginning of the academic year and you will be reminded by your lecturer.

Third Year Optional Year Abroad

Students in third year have the option to study abroad. The option to study abroad is dependent on availability and achieving a 2H1 in 2nd year of their BE (Hons) programme. Students have travelled to the USA, the UK and Continental Europe.

Funding is available from the EU’s ERASMUS+ programme to assist with travel and accommodation costs when studying abroad in Europe. Like to learn a foreign language? You can take up to 20 credits worth of language tuition as part of your year abroad programme.

Extended ME Degree

At the end of third year you will also have the option to transfer into the Master in Engineering (ME) degree for 2 more years or continue with the BE (Hons) degree. Entry into the ME programme is dependent on academic achieving a 2H2 award in year 3.

STUDENT RESOURCES

STUDENT EMAIL AND CANVAS

Registered Engineering students get a UCC email address in the form “studentnumber@umail.ucc.ie” as well as an Engineering PC Account to access Engineering Lab computers. This will be emailed to you before the first week of classes.

Canvas is an online virtual learning environment and will be your new best friend. That is where you will find all information regarding your courses and timetable throughout the academic year. You need to check it and your student email regularly in order to keep up to date with course content, continuous assessments and announcements. Once you are a registered UCC student, all correspondence from the University will be through your official student email and Canvas.

LIBRARY

The Boole Library is the main campus library. It is a state-of-the-art facility that has many services to offer UCC students.

The library operates on a "no student card, no entry" policy, so you need to use a student card. The library has green, amber and red zones where noise is permitted and where absolute silence is required. There are also seminar rooms that can be booked in the building for group studying and discussions.

Some of the services offered by the Boole Library include:

- computers and laptop lending for up to 4 hours.
- the skills centre which assists students with note-taking, unpacking questions, proof-reading and editing among its many other services. You can attend workshops or book a slot.
- assistive technology computer lab for disabled students on the ground floor.
- the Blackstone LaunchPad which is a campus-based experiential entrepreneurship programme open to the UCC community.

EXAMS, MITIGATION AND APPEALS

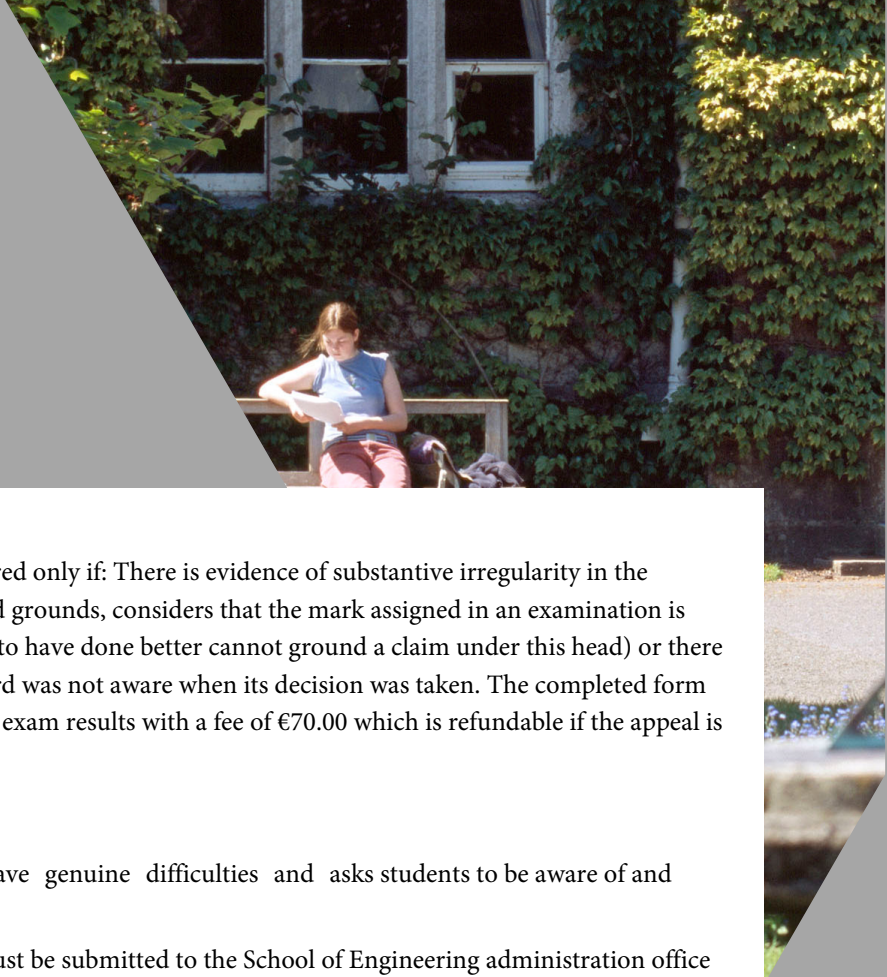
Examinations take place in December (Winter) for first semester and May (Summer) for second semester. A few weeks before the exams students will be emailed their exam timetables. Should you fail or defer your exams repeat examinations are taken in August (Autumn).

Deferral: Your circumstances may be such that you are unable to sit for exams or submit continuous assessment during the Winter and Summer Exam Session. If this is the case, then you may apply for a deferral. If granted it means that you can take your exams in the Autumn Exam Session without the usual capping of 40% being applied to your results and at the same time be considered as your first attempt.

Mitigation: If you fail exam(s) or continuous assessments in the Winter/Summer Exam session and you feel that the reasons for your failure are exculpatory, then you may apply for Mitigation. If your application is successful it means that you can retake exam(s) without the usual capping of 40% being applied to your results and at the same time be considered as your first attempt.

To apply for deferral and/or mitigation, please visit: Student Records and Examinations | University College Cork.

Students should note therefore that the exams appeal process does not facilitate regrading of work or have provision for grading exams again by the module lecturer(s) or anyone else.



UCC Formal Appeals Processes

An appeal of an examination result will be considered only if: There is evidence of substantive irregularity in the conduct of an examination or the student, on stated grounds, considers that the mark assigned in an examination is erroneous (Student's contention that he/she ought to have done better cannot ground a claim under this head) or there were circumstances of which the Examination Board was not aware when its decision was taken. The completed form should be returned within 2 weeks of the issuing of exam results with a fee of €70.00 which is refundable if the appeal is upheld. <https://www.ucc.ie/en/exams/>

Medical Certificates

The School willingly supports students who have genuine difficulties and asks students to be aware of and support the following procedures:

- Medical Certificates or General Absence Forms must be submitted to the School of Engineering administration office by emailing schoolofengineering@ucc.ie no later than two weeks after the date of examination/assessment deadline or approved assessment submission date. Flexibility will be allowed in exceptional circumstances that prevent submission within the two-week window. This form is available on the School of Engineering website: <https://www.ucc.ie/en/soe/student-information>. Students must submit the Medical Certificate Form together with their certificates.

On receipt of the medical certificate, the administration staff will initial and stamp the certificate and retain the original in a secure filing system. Upon request, a copy will be provided to the student.

- A copy of each medical certificate will be submitted/scanned monthly to the Student Records and Exams Office (SREO).

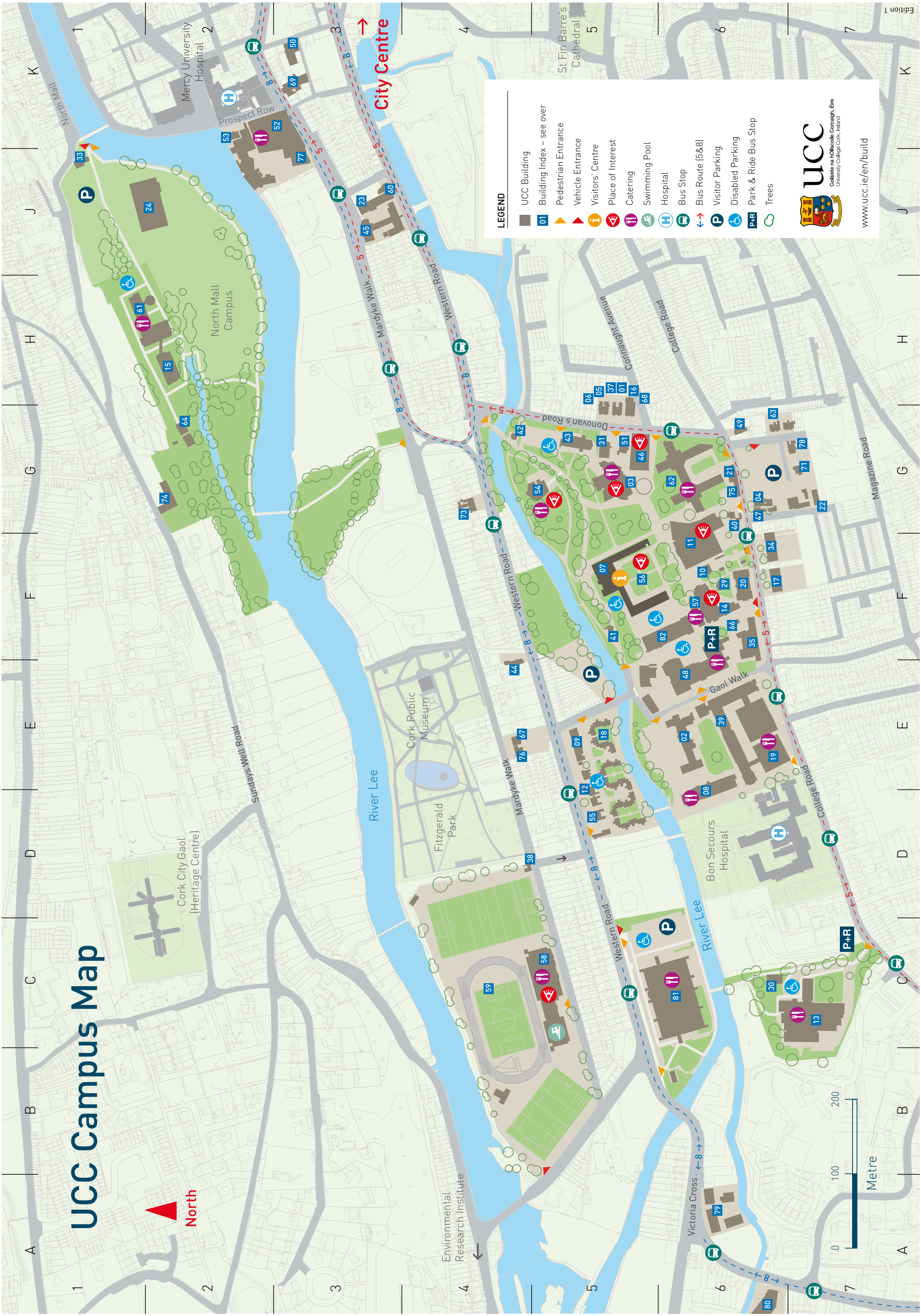
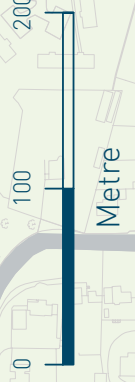
- All documentation submitted to the departmental office will be treated with the utmost sensitivity and confidentiality.

•General Absence Forms:

A General Absence Form (non medical) must be submitted to the administration office emailing schoolofengineering@ucc.ie no later than two weeks after the date of examination/assessment deadline or approved assessment submission date. Flexibility will be allowed in exceptional circumstances that prevent submission within the two-week window. This form is available on the School of Engineering website: <https://www.ucc.ie/en/soe/student-information>

Student Advisor and Ombudsman: The purpose of the post of Student Advisor and Ombudsman is to advise and assist students with the resolution of difficulties, complaints or grievances involving staff or services of the University in an informal manner. All enquiries to the Student Advisor and Ombudsman will remain confidential, except in cases of serious threat to life or property. The current Student Advisor and Ombudsman is Professor Fred Powell. Professor Powell welcomes enquiries from students by email at studentombudsman@ucc.ie. The services provided for by this post are complementary to a range of existing student services and the Student Advisor and Ombudsman may refer relevant student issues for resolution by those services as appropriate.

UCC Campus Map



LEGEND

UCC Building

Building Index – see over

Pedestrian Entrance

Vehicle Entrance

Visitors' Centre

Place of Interest

Catering

Swimming Pool

Hospital

Bus Stop

Bus Route (5&8)

Visitor Parking


Disabled Parking

Park & Ride Bus Stop

Trees

UCC
Coláiste na hOllscoile Corcaigh, Éire
University College Cork, Ireland
www.ucc.ie/en/build

Design: kunnertandtherney.com

Building Index:	No.	Grid
Aldworth / William Thompson House	01	H5
Áras Na Laoi	02	E6
Áras na Mac Léinn / Student Centre	03	G5
Artpatrick	04	G6
Ashford	05	H5
Askive	06	H5
Aula Maxima	07	F5
Biosciences Research Institute	08	D6
Bloomfield Terrace	09	E5
Boole Lecture Theatres	10	F6
Boole Library	11	F6
Brighton Villas	12	D5
Brookfield Health Sciences Complex	13	C7
Buildings and Estates	14	F6
Butler Building	15	H2
Carrigbawn	16	H5
Carrigside	17	F6
Castlewhite Apartments	18	E5
Cavanagh Pharmacy Building	19	E6
Civil Engineering Building	20	F6
54 College Road / Students Union	21	G6
College View	22	G7
Connolly Building	23	J3
Cooperage	24	J2
Copley Street	25	map B
Cork Dental School & Hospital	26	map B
Cork University Hospital	27	map B
Cork University Maternity Hospital	28	map B
Crawford Observatory	29	F6
Crèche Cois Laoi	30	C6
Crossleigh	31	G5
Curraheen Sports Ground	32	map B
Distillery House	33	J1
Elderwood	34	F6
Electrical Engineering Building	35	F6
Environmental Research Institute	36	map B
Fernhurst	37	H5
Ferry Lodge	38	D4
Food Science and Technology Building	39	E6
Gate Lodge (College Road)	40	G6
Gate Lodge (Gaol Bridge)	41	F5
Gate Lodge (Western Road)	42	G4
Geography Building	43	G5
Glenlee	44	E4
Granary Theatre	45	J3
Honan Chapel	46	G5
Iona	47	G6
Kane Building	48	E6
Knocknacool	49	G6
Lancaster Hall	50	K3
Lee Holme	51	G5
Lee Maltings Complex	52	K2
Lee Mills House	53	J2
Lewis Glucksman Gallery	54	G5
Lucan Place	55	D5
Main Quadrangle	56	F5
Main Restaurant	57	F6
Mardyke Arena 	58	C5
Mardyke Sports Complex	59	C4
Muskerry Villas	60	J3
North Mall (Enterprise Centre)	61	H1
O’Rahilly Building	62	G6
Perrott Avenue	63	G6
Plant Sciences Glass Houses	64	G2
Pouladuff	65	map B

Reception Centre / Security	F6
Roseleigh	E4
Safari	H5
Sheares House	K3
Sheraton Court	map B
Silverdale	G7
South Bank, Crosses Green	map B
St. Kildas	G4
St. Vincents	G2
Students' Union Common Room	G6
The Laurels	E4
Tyndall National Institute	J3
Tyrconnell	G7
University Hall	A6
Victoria Lodge	A6
Western Gateway Building	C6
Windle Building	F6

Colleges:

Arts, Celtic Studies and Social Sciences	No.	Grid
Ground Floor O’Rahilly Building		
T +353 [0]21 490 23&1/2773	62	G6
CACSSS@ucc.ie		
School of Applied Psychology	61	H1
School of Applied Social Studies	16	H5
School of Education	51	G5
School of English	62	G6
School of History	78	G7
School of Geography and Archaeology	43	G5
• The Human Environment	23	J3
Scoil Léinn na Gaeilge / School of Irish Learning	62	G6
School of Languages, Literatures and Cultures	62	G6
School of Music and Theatre	74+45	G2+J3
School of Sociology and Philosophy	68+55	H5+D5
School of Asian Studies	62	G6
Study of Religions	62	G6
Classics	62	G6
Politics	62	G6

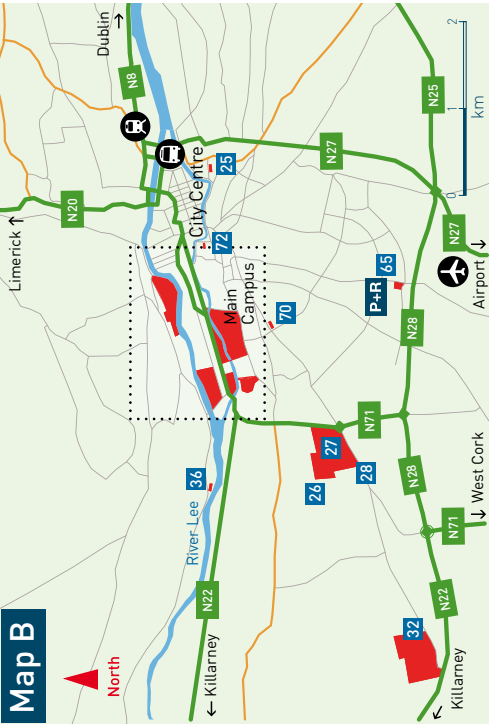
Business and Law	No.	Grid
Room 3.02 O’Rahilly Building		
62T +353 [0]21 420 5100	62	G6
businessandlaw@ucc.ie		
Accounting, Finance and Information Systems	62	G6
Centre for Policy Studies	09	E5
Economics	02	E6
Food Business and Development	62	G6
Government	62	G6
Law	02	E6
Management and Marketing	62	G6




Medicine and Health	No.	Grid
Brookfield Health Sciences Complex		
T +353 [0]21 490 1571/1576/1577	13	C7
medfac@ucc.ie		
Dental School and Hospital	26	map B
School of Medicine	13	C7
School of Nursing and Midwifery	13	C7
School of Pharmacy	19	E6
School of Clinical Therapies		
• Occupational Therapy	13	C7

School of Clinical Therapies	13	C7
• Speech & Hearing Sciences	82	F6
Anatomy	26	map B
Dental Surgery	13	C7
Epidemiology and Public Health	81	C6
General Practice	27	map B
Medicine [Department]	28	map B
Obstetrics and Gynaecology	26	map B
Oral Health and Development	26	map B
Oral Health Services Research Centre	27	map B
Paediatrics and Child Health	27	map B
Pathology	27	map B
Pharmacology and Therapeutics	27	map B
Physiology	81	C6
Psychiatry	27	map B
Radiology	27	map B
Restorative Dentistry and School of Dental Hygiene	26	map B
Surgery	27	map B

Science, Engineering and Food Science	No.	Grid
Block E Level 3 Food Science Building		
T +353 [0]21 490 3075	39	E6
collegeoffice@sefs.ucc.ie		
School of Life Sciences		
• Biochemistry	08	D6
• Microbiology	39	E6
School of Engineering	20	F6
• Civil and Environmental Engineering	35	F6
• Electrical & Electronic Engineering	39	E6
• Process & Chemical Engineering	36	F6
• Microelectronic Engineering	39	E6
School of Food & Nutritional Sciences	81	C6
School of Mathematical Sciences	81	C6
School of Computer Science & Information Technology		
School of Biological, Earth & Environmental Sciences	15	H2
• Zoology, Ecology & Plant Science	15	H2
• Geology	48	E6
Chemistry	48	E6
Physics		

Campus Information:		www.ucc.ie
Switch Board +353 (0)21 490 3000		
Services	No.	Grid
Accommodation Office	17	F6
Admissions Office	56	F5
Assistive Technology Services	11	F6
Bank	03	G5
Book Shop	03	G5
Careers Service	12	D5
Chaplaincy	47	G6
Crèche	30	C6
Disability Support Services	40	G6
Fees	56	F5
Graduate Studies Office	56	F5
Grants	56	F5
Human Resources	39	E6
International Education Office	67	E4
Language Centre (English as a Foreign Language)	62	G6
Mature Student Office	12	D5
Reception Centre / Security	66	F6
Student Common Room	75	G6
Student Health, Counselling & Development	04	G6
Student IT Services		
• Boole Basement	10	F6
• 3rd Floor Kane Building	48	E6
• Block A Level 4 Food Science Building	39	E6



Student Records & Examinations	56	F5
Students' Union	21	G6
UCC PLUS+	12	D5
Visitors' Centre	56	F5
Catering 	No.	Grid
Áras na Mac Léinn / Student Centre	03	G5
Bio Café	08	D6
Brookfield Café	13	C7
Café Glucksman	54	G5
Coffee Dock in O’Rahilly Building	62	G6
Kampus Kitchen	48	E6
Lee Maltings	52	K2
Mardyke Arena	58	C5
The Mini	57	F6
The Old College Bar	57	F6
Pharmacy Café	19	E6
Staff Dining Room	57	F6
The Still	61	H1
U.C.Central	57	F6
Western Gate Café	81	C6
Places of Interest 	No.	Grid
The Main Quadrangle	56	F5
Stone Corridor and Ogham Stone Collection	56	F5
Aula Maxima	07	F5
Crawford Observatory	29	F6
Boole Library	11	F6
Honan Chapel	46	G5
Áras na Mac Léinn / Student Centre	03	G5
President’s Garden (Adjacent to Main Quadrangle)		G5
Lewis Glucksman Gallery	54	G5
Mardyke Arena	58	C5
Visitors’ Centre 	56	F5

Campus Map



Cólaiste na hOllscoile Corcaigh, Éire
University College Cork, Ireland

STUDENT SUPPORTS

As an engineering student at UCC you may have issues ranging from academic to more general ones. You may become overwhelmed with university life, feel alone and seek assistance. There are places and people you can go to for your queries who can assist you or simply offer an ear to your qualms.

Academic queries or problems

- **Related to course material or arising from lectures:** speak to your tutor, lecturer or class representative if necessary
- **With regard to a lecturer or the way a course is being run:** speak to the course convener or Head of Department
- **Related to the course or majors for choices, broad advice:** see a student advisor

Administrative offices dealing with student matters:

Query:	Whom to approach:	Contacts:
General queries, including registration, academic transcripts/degree certificates, student cards, etc.	Student Records and Examination, West Wing, University College Cork, Cork	(021) 490 2422 sreo@ucc.ie https://www.ucc.ie/en/records-exams/
Fee payments/ fee issues	Fees Office, North Wing, Main Quadrangle, University College Cork	(021) 490 2365 fees@ucc.ie https://www.ucc.ie/en/financeoffice/fees
Financial assistance	Student Assistance Fund, 1st Floor, 1-2 Brighton Villas, Western Road, UCC	studentassistancefund@ucc.ie https://www.ucc.ie/en/saf/
Accommodation advice	Office of Student Residential Services and Community Relations	(021) 490 3849 resservices@ucc.ie https://www.ucc.ie/en/accommodation/
Medical assistance, psychological counselling	Student Health Department, Ardpatrik, College Road	(021) 490 2311 https://www.ucc.ie/en/studenthealth/
All queries related to degree options, withdrawals, flexi-options, internal transfers and career guidance	Ms. Nóirín Deady, First Year Experience Co-ordinator	(021) 490 3571 n.deady@ucc.ie https://www.ucc.ie/en/study/undergrad/firstyear/orientation/

ENGINEERING STAFF

Head of School of Engineering

Professor Jorge Oliveira

Email: j.oliveira@ucc.ie

School Manager

Ms Helen Buckley

Email: h.buckley@ucc.ie

Admin

Ms Claudia Cashman

Email: schoolofengineering@ucc.ie

Ms Mary O'Leary

Tel: (021) 4902210 or 4903081

Civil, Structural and Environmental

Engineering

Interim Head of Discipline

Email: d.kelliher@ucc.ie

Dr Denis Kelliher

Admin

Email: Sheila.lonergan@ucc.ie

Ms Sheila Lonergan

Tel: (021) 4902128

Electrical and Electronic Engineering

Head of Discipline Prof.

Peter J. Parbrook

Email: p.parbrook@ucc.ie

Admin

Ms Niamh O'Sullivan

Email: ni.osullivan@ucc.ie

Tel: (021) 490 2923

Energy Engineering

Interim Head of Discipline

Dr Paul Leahy

Email: paul.leahy@ucc.ie

Admin

Ms Jennifer Barry

Email: jennifer_barry@ucc.ie

Tel: (021) 4903980

Process and Chemical Engineering

Head of Discipline

Prof Edmond Byrne

Email: e.byrne@ucc.ie

Admin

Ms Claire O'Sullivan

Email: claire.osull@ucc.ie

Tel: (021) 4902389

Systems Admin

IT related issues, forgotten passwords etc (email only using your ucc student email)

SOE-ITSupport@ucc.ie

Head of Discipline



UCC was the first university to be awarded a Green Flag from the Foundation for Environmental Education in 2010 and has consistently ranked in the top 15 of the UI Green Metric since entering the ranking in 2011.

source: www.breakingnews.ie

*UCC is internationally acclaimed as one of the the top **2%** of research institutions in the world, with research income exceeding €401 million in the past 5 years.*

source: www.iua.ie

GENERAL INFORMATION

Disability support services

The Disability Support Service (DSS) is committed in as far as is reasonably possible, to empowering students with disabilities achieve academic and vocational goals in an inclusive learning environment. This is a free and confidential service to all students who register with the Disability Support Service.

The DSS provides a range of Educational, Technological, Personal and Social Supports to students with disabilities and Specific Learning Difficulties.

Web: <https://www.ucc.ie/en/dss/>

Mature student office

The mature student office is there to assist the mature student population of UCC. They provide aids, advice and references to relevant parties if needed.

They are located at 1-2 Brighton Villas, Western Rd.

Web: <https://www.ucc.ie/en/mature/>

Peer assisted student support

uLink Peer Support is a service to support first year students in UCC. All undergraduate meet and are linked with a peer support leader who is studying the same programme at orientation. As a first year, your peer support leader is available to contact at any time.

A peer support leader is there to provide practical, emotional and social support to students in their first year at UCC. Contact the PASS office on 021 420 5188 or email: pass@ucc.ie.

Web: <https://www.ucc.ie/en/peersupport/>

Student health services

The Student Health Services is there for all your physical and mental well-being needs. You can set up an appointment to see either the GP or a psychologist. They provide a range of services to students at greatly subsidised prices or for free.

Web: <https://www.ucc.ie/en/studenthealth/>

UCC Plus +

This is a service that provides additional support to UCC students from less privileged backgrounds. UCC Plus+ provides many supports, including: a dedicated Support Officer to facilitate your transition to College Life and onward progression to finishing your degree, financial bursary, academic support, skills workshops, access to student resource room, free printing and information and referrals to other student support services of the university.

Web: <https://www.ucc.ie/en/uccplus/>

Transport

To get to campus there are buses and shuttle services available for students and staff. Bus Eireann provides regular bus routes that stop by campus. Routes 205, 208, and 220 stop at UCC from the city centre, Bishopstown and Carrigaline respectively. You can find times and routes on their website <https://www.buseireann.ie/>.

The University also has parking, though limited, for student and staff. In addition, some parking spaces provide free shuttle services to and from campus.

Web: <https://www.ucc.ie/en/build/commuting/>

Photocopying

Students can access photocopying, scanning and printing services on campus from the library, Boole computer labs, the CAD Lab, the O'Rahilly Building and many more places on campus. You can also print remotely using uPrint. Prices range from 6c per page black and white upward. You can find more information on help desks or on the UCC website.

Student Union

UCC Students' Union is the chief representative body for students in UCC. UCCSU is a democratic organisation run by 6 full-time officers elected by the student body. The SU's main functions are to provide academic assistance to students, to provide support to students in need, to lobby the university and the government on issues affecting students and to provide entertainment on campus. You can contact their physical offices on campus or online.

Web: <https://www.uccsu.ie/>

IMPORTANT KEY DATES 2024-25

*Click here for information on the
Student Records and Exam website*

<https://www.ucc.ie/en/student-records/key-dates/#key-semester-dates-2024-25>



UCC

University College Cork, Ireland
Coláiste na hOllscoile Corcaigh