



OLLSCOIL NA GAILLIMHE
UNIVERSITY OF GALWAY

College of Science and Engineering

First Year
Academic Booklet

2024/25



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**For enquiries please call the First Year
Student Hotline
091-493999**

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The Academic Booklet confers no rights on any student registered for the Session 2024-25.



Welcome to the University of Galway



Welcome to the College of Science and Engineering. Our College is a research-intensive College and our research informs all our teaching.

Our programmes are progressive, diverse, and research-led. Drawing on the distinctive strengths of our region in areas such as medical technologies, marine ecology, data/ICT, sustainable energy and construction and enabling technologies, we work in partnership with business and industry to provide graduates with the skills and knowledge to drive innovation, economic growth and research, and to address global challenges and concerns.

The College now offers 22 different undergraduate degree programmes to over 1000 first-year students. All of our students are most welcome and, we wish each and every one of you success and hope that you fully partake of the opportunities presented to you both academically and socially during your time at the University.

To help you adjust to University life, we have assigned an Advisor to each first year student. You will be informed of your academic Advisor during the first few weeks of term. (*some programmes may not participate) Should circumstances arise during the year that adversely affect your performance at University, you should arrange to make an appointment to see your dedicated academic Advisor or our Student Support Officer, Kelly Moore. We look forward to meeting you at Orientation.

Professor Walter Gear.
Executive Dean.



Making the Transition to University

When students make the transition from school to University they are faced with a whole range of new experiences and issues. You may be living away from home for the first time, you may not know any of your classmates yet, you are probably not familiar with the campus and may not even be familiar with Galway city. One of the most significant issues for you though will be getting to grips with the way university differs from school. For instance, no one is going to nag you about deadlines.

Learning at university is of course a very different experience to that of being at school. For a start, as a student you are considered an adult learner, capable of managing your own study schedule and putting in the time to read textbooks, articles and other materials so that you really understand your chosen subjects and feel more confident as you progress.





Supplementary Learning outside of the classroom

The lectures, seminars, laboratory classes and other timetabled classes are actually only a small part of the total effort that you need to put in to succeed. Supplementary learning outside of lectures is a critical component of the learning experience. All of the assessment, coursework and available credit are based on the idea that you are spending a minimum of 40 hours per week, every week of the semester, on learning and assessment. This just represents a full-time workload and is the standard model used across Ireland and all courses that use European Credits (something called ECTS – European Credit Transfer System). In some courses it may be a little higher than this because of the nature of the subject.

The other big difference between university-level courses and some other types of qualification is that you really need to try to understand the subject and the ideas you come across in class or your reading. It's not about memorizing and regurgitating facts, but about seeing the ideas that lie behind them and being able to make use of knowledge to tackle new problems. That can be tricky to adjust to and sometimes it is really difficult to make sense of new concepts. The good news is, that this is exactly what learning something new is like for everyone. There are always ideas that are really tricky to grasp at first and which don't make sense until you try again and again, hopefully getting some feedback on your efforts and maybe through working with fellow students. But when it does 'click' things fall into place and you get a sense of satisfaction that hopefully makes some of that struggle worth it! That's why we say you need to spend so many hours on self-study, because we know from experience (and extensive research on education) that you will need that time.

Attendance and Submission of Assignments

It is essential that you get into the habit of attending all your lectures, tutorials and laboratories. Every year we see that there is a direct correlation between good attendance and good performance in examinations. All lecturers will routinely monitor attendance and poor attendance will have consequences.

It is also critical that assignments are submitted on time. You will need to learn to prioritise your work and leave plenty of time for assignments. Familiarise yourself with the library so that you know where you need to go to locate books and articles relevant to your area of study.

“It's not about memorizing and regurgitating facts, but about seeing the ideas that lie behind them and being able to make use of knowledge to tackle new problems.”





Student Support Officer



“If you find yourself feeling overwhelmed or need help getting back on track, I am here to help.”

My name is Kelly Moore and I am the Student Support Officer in the College of Science and Engineering. My role is to support you during your time here at the University of Galway. Starting university can be an exciting but challenging time. If you find yourself feeling overwhelmed or need help getting back on track, I am here to help. I can offer personal support, advice and information on issues that affect your university experience, including general welfare and personal challenges that may compromise your ability to study. I can offer advice about study planning, time management, financial assistance and support you during medical, emotional, or mental health challenges you may be experiencing.

I provide a confidential, non-judgemental, and empathetic space for you to share your concerns. Please do not hesitate to get in touch with me. I am here to support you and I am looking forward to meeting you. Best of luck with this new and exciting chapter of your life.

Best Wishes,
Kelly Moore, Student Support Officer,
StudentsupportCSE@universityofgalway.ie



To make an appointment with Kelly you can scan this QR code:





Student Success Coach



“First year is an exciting year that includes a lot of new experiences. Coaching can help you navigate change successfully.”

Hi all and a warm welcome to the University of Galway. I'm Denise McBride, the Student Success Coach for GY301 Science students. First year is an exciting year that includes a lot of new experiences. Coaching can help you navigate change successfully. Please reach out to me successcoach@universityofgalway.ie for support with; making an successful transition into university life and your new community, increasing your self-awareness with the aim to maximise your interests, talents and values, and to explore co-curricular and extracurricular opportunities - e.g. societies, clubs, CÉIM peer learning, that can complement and support your degree. Contact me, I can offer one to one or group coaching sessions where you can have honest conversations, map out life goals, identify possible barriers to success and develop a personal action plan. I look forward to meeting you all. For coaching, contact successcoach@universityofgalway.ie

The SUMS (Support for Undergraduate Maths and Statistics)

The SUMS is a drop-in maths support centre where any student can work on their maths questions, with expert tutors on hand to offer individual help if necessary.

The centre is FREE to students and is an initiative of the Students' Union and the School of Mathematical and Statistical Sciences. SUMS is located in Aras de Brun on the ground floor ADB-G023. Further information including opening hours, is available at:

universityofgalway.ie/public-sites/s-u-m-s/
Email: sums@universityofgalway.ie



Scan here for
more information





Canvas

Canvas is a learning system which allows lecturers to post materials such as lecture notes, reading materials, weblinks, videos, quizzes, etc, online. Many courses also use this for announcements, news items and for students to submit their coursework. Canvas has a lot of additional tools and capabilities and quite which of these are used is decided by the lecturer or course team. Canvas is available 24/7 from both on and off campus. Not every lecturer or module will necessarily be using it, but most will and in different ways. You should certainly login regularly to check for updates to your modules.

ComputerDisc

ComputerDISC is a drop-in support centre for students who are enrolled in computer programming or software development courses. ComputerDISC is located on the first floor of the Computer Science Building (formerly IT building). Students can drop in at any time during opening hours as no appointments are necessary. Further information can be found at universityofgalway.ie/science-engineering/school-of-computer-science/currentstudents/computerdisc/

Academic Writing Centre

The Academic Writing Centre (housed in the Library) offers free tutorials on essay writing. Last year, AWC tutors helped over 500 students to overcome recurrent problems with grammar, punctuation, spelling and essay structure. There is no need to make an appointment, simply drop in during the opening hours of the Centre <https://library.universityofgalway.ie/studying/awc/#>

Academic Skills Hub

The Library operates a free Academic Skills Hub desk where you can access one-to-one support with information skills such as searching for books and journals, or referencing your work here <https://library.universityofgalway.ie/academicsskills/>

There is also an online Academic Skills Hub that brings together most of University of Galway's academic skills supports in one place. <https://library.universityofgalway.ie/academicsskills/>. This online resource is packed with tips, information, short guides, checklists, links, and more, to help you to develop key skills needed for academic success at University of Galway.

Grind Register

The Students' Union maintains a Grind Register service detailing a list of people offering grinds to students. Details are available here: <https://su.universityofgalway.ie/advice/grinds-register/>

“Last year, AWC tutors helped over 500 students to overcome recurrent problems with grammar, punctuation, spelling and essay structure.”





CÉIM Peer Learning

CÉIM is an academic peer learning programme for 1st year students in specific disciplines and is a joint initiative by the College of Science and Engineering and University of Galway Students' Union.

CÉIM is currently available to 1st year students studying:

- Engineering
- Biomedical Science
- Computer Science & Information Technology
- Science (GY301)
- Biotechnology
- Genetics and Genomics

Designed to complement your lectures and tutorials, CÉIM helps you gain a better understanding of your coursework in a relaxed atmosphere, quickly adjust to life at University of Galway, become a successful higher education learner and get to know other students in your course. Research shows that students who attend CÉIM regularly achieve higher grades on average than those who do not.

CÉIM sessions are welcoming and friendly, yet purposeful, with the emphasis on everyone in the group working together. Attendance is taken at CÉIM sessions.

Start Dates

CÉIM sessions start:

- Week of 23 September: Engineering, Biotechnology, Genetics and Genomics, Biomedical Science, Computer Science & Information Technology
- Week of 30 September: Science (GY301)

www.ceim.su.universityofgalway.ie

How to take part

1	A few days before your CÉIM session starts, log into yourspace.universityofgalway.ie using your University of Galway student details
2	Click CÉIM in the left menu
3	See your CÉIM session time and information

CÉIM

SHARED LEARNING





Academic Advisory Scheme

The University is probably the largest organisation most of you will have been involved with. The numerous buildings, lecture theatres, labs, offices, teaching rooms and library space scattered across the campus host about 18,000 students and more than 3,000 staff. Added to this, you'll be learning a new vocabulary and negotiating new systems too.

The university is very aware of the big, exciting step you've taken in coming here and there are many supports available to students starting out on their university experience, some more formal than others. The College Academic Student Advisory Scheme offers informal supports and guides to all science and engineering students. Each of you will be assigned an Academic Advisor who will be a point of contact who can guide or signpost you to any relevant supports or assistance you need. The role of the Advisor is to be another support for you and to help you navigate and negotiate the start of your university experience.

Your Advisor will contact you soon after you've registered to arrange an introductory meeting with you in the first two weeks of term. The principal role of your Advisor is to arrange that you receive the help that you may need during your initial years in university. If you find, for example, that you are running into academic or personal problems, or that you are unsure of what is required of you, or if you have queries about the facilities available, you are strongly recommended to make contact with your Advisor at the earliest possible opportunity. They will make every effort to either help you directly or will ensure that you are put in contact with the staff members who can best provide the necessary advice.





Jargon Buster – Modules, Programmes, Levels

All courses in University of Galway are made up of '*modules*'. These are usually described by a set of '*Learning Outcomes*' that state what you should be able to do after successfully completing the module and a number of '*ECTS*' credits. ECTS is basically an indicator of how big the module is. A module that is rated at 5 ECTS, for example, means that you need to spend at least 100 hours of concerted effort (including lectures, exams and self-study) in order to complete it satisfactorily. A module that is 10 ECTS, unsurprisingly, requires double that effort. A whole year's worth of modules (if you are a full-time student) should total up to 60 ECTS. To be awarded the credits for a module you must of course have successfully completed it in terms of attendance, participation, coursework and examinations.

A 'programme' is a whole degree course, made up of all the individual modules. It is usually described by 'Programme Learning Outcomes' and there will be rules that determine which modules you need to successfully complete each year to end up with the appropriate degree title (e.g. BSc, BE (Mechanical), BComm, etc)).

All of our degree programmes are recognised by employers and other educational institutions and comply with international agreements on course structure (the 'Bologna Process'). All programmes are subject to regular quality reviews where the quality of the teaching and learning is scrutinised by an external panel with international experts in the subject. Every programme also has an 'external examiner' (a senior academic from another university) who oversees the final decisions about grades, checks the examination papers and processes and guarantees that the quality of our courses and graduates compare well with the standards in the subject.

Ireland has a National Framework of Qualifications (NFQ) that describes the levels of all courses of study and this matches similar schemes in other countries so that it is easy for employers and educators to make sense of different qualifications obtained from different institutions, as well as making it easier for students to move between one country and another, picking up credit and qualifications along the way. According to this scheme, an undergraduate honours degree (BA, BSc, BE, etc) is a 'level 8' qualification. A Masters would be level 9 and a PhD level 10.

“All programmes are subject to regular quality reviews where the quality of the teaching and learning is scrutinised by an external panel with international experts in the subject.”





So what does this mean in practice?

Well, that you must attend all the scheduled classes, spend time every week on reading, studying and working through course materials and that what you are trying to do in the assessments and exams is show that you can actually achieve the learning outcomes. There's still plenty of time to socialize and get involved in clubs and sports (see later section) outside the 40 hours! The lectures, labs, tutorials and other classes, combined with the textbooks, online materials, and the library are all resources that the University provides to help you succeed. At the end of the day, though, success depends on your own efforts. It is possible to not only succeed in the assessments and feel a sense of achievement at having learned new knowledge and skills, but also to enjoy being a student in your chosen subject. Your final qualification will be well-regarded and recognised internationally by employers and other educational institutions across the world.

The University doesn't see you as a 'customer' or a 'consumer' but hopes that you will, instead, be a member of our academic community. That you will be able to get the most out of being in a city of ideas and learning not just about the basics of your subject but also get a feel for the latest research, the big ideas, the debates and where future opportunities lie for further study, research or employment.

Science Student Laboratory Numbers

Following the completion of your on-line registration, you will be emailed a laboratory number (normally in week 2 of term). This number is used when drawing up timetables for practical classes.

Vevox (live polling)

University of Galway uses Vevox, which is an interactive-polling software. Teaching staff may run polls during lectures in order to facilitate discussion and engagement. Vevox runs on a web browser, or as an app on smartphones and tablets. If your lecturer runs a poll in class, they will first prompt you to join the poll via your phone or laptop via the web address vevox.app using a nine digit code which they will display on screen.

“The University doesn't see you as a 'customer' or a 'consumer' but hopes that you will, instead, be a member of our academic community.”





Know The Code!

Your programme has a unique University Code. This is the code you will see on your registration statement and class and examination timetables. For example (GY301) Science is referred to as 1BS1

- (GY301) Science (1BS1)
- (GY303) Biomedical Science (1BO1)
- (GY304) Biotechnology (1BY1)
- (GY308) Environmental Science (1EV1)
- (GY309) Financial Mathematics & Economics (1FM1)
- (GY310) Marine Science (1MR1)
- (GY313) Occupational Health & Safety Management (1OHM1)
- (GY314) Earth & Ocean Sciences (1EH1)
- (GY318) Biopharmaceutical Chemistry (1BPC1)
- (GY319) Mathematical Science (1BMS1)
- (GY320) Physics (1PHY1)
- (GY321) Genetics & Genomics (1BGG1)
- (GY322) Agricultural Science (1AGS1)
- (GY350) Computer Science (1BCT1)
- (GY401) Engineering (Undenominated) (1EG1)
- (GY402) Civil Engineering (1BE1)
- (GY405) Mechanical Engineering (1BM1)
- (GY406) Electronic & Computer Engineering (1BP1)
- (GY408) Biomedical Engineering (1BG1)
- (GY410) Project & Construction Management (1BCM1)
- (GY413) Energy Systems Engineering (1BSE1)
- (GY414) Electrical & Electronic Engineering (1BLE1)



Programme Information

(GY301) Science (1BS1)

Type	Choice	ECTS	Code	Module Title
Optional	(4*15)	15	MA180	Mathematics (Honours) *
		15	MA161	Mathematical Studies *
		15	MP180	Applied Mathematics *
		15	BO101	Biology
		15	CH101	Chemistry
		15	CS102	Computer Science
		15	PH101	Physics

Note:

* Students are required to register for at least one of the following:

MA161: Mathematical Studies

MA180: Mathematics (Honours)

MP180: Applied Mathematics

where MA161 and MA180 cannot be registered for at the same time - please refer to relevant orientation talk, for advice on selecting these modules.

On your Registration Portal, the 1st Year modules are divided into 3 Module Groups entitled:

- Mathematical Studies
- Mathematics Honours
- Applied Mathematics

Each group contains one of the above core modules for which you will automatically be registered. You can then select your remaining modules from the list of optional modules as outlined above.

Students should note that their selection of optional modules in First Year can have a consequence on their choice of pathways in 2nd year, since the following first year modules in the table below are required for students entering their Second-Year courses. Please refer to the information in relation to 2nd year Module Selection on pages 16-19.





Year 2 Pathways and their Pre-requisite Modules

Year 2 Pathway	Prerequisite Modules	Pathway Credits
Anatomy (AN)	BO101 and CH101 and PH101 and (one of MA161/MA180/MP180)	20
Pharmacology (PM)	BO101 and CH101 and PH101 and (one of MA161/MA180/MP180)	20
Physiology (SI)	BO101 and CH101 and PH101 and (one of MA161/MA180/MP180)	20
Medicinal Chemistry (MDCH)	BO101 and CH101 and PH101 and (one of MA161/MA180/MP180)	40
Chemistry (CH)	CH101 and (at least one of MA161/MA180/MP180)	20
Biochemistry(BI)	BO101 and CH101 and PH101 and (one of MA161/MA180/MP180)	20
Microbiology (MI)	BO101 and CH101 and (at least one of MA161/MA180/MP180)	20
Plant and AgriBiosciences (PAB)	BO101 and (at least one of MA161/MA180/MP180)	20
Botany and Plant Science (BPS)	BO101 and (at least one of MA161/MA180/MP180)	20
Earth and Ocean Science (EOS)	BO101 and CH101 and PH101 and (one of MA161/MA180/MP180)	20
Zoology (ZO)	BO101 and (at least one of MA161/MA180/MP180)	20
Physics and Climate Physics (PHCP)	PH101 and CH101 and (at least one of MA161/MA180/MP180) (Taken with either CH pathway or EOS pathway. If taken with EOS pathway, BO101 required)	40
Physics and Applied Physics (PHAP)	PH101 and (at least one of MA161/MA180/MP180)	20
Mathematics (MA)	MA180	20
Applied Mathematics (MP)	MP180	20
Computing (CS)	CS102 and (at least one of MA161/MA180/MP180)	20
Data Science (DS)	CS102 and MA180	40
Mathematical Studies and Computing (MSCS)	CS102 and (MA161 or MA180)	40



Year 2 Electives and their Pre-requisite Modules

Module	Module Name	Credits	Semester	Pre-Requisites	Notes
BO201	Molecular and Cellular Biology	5	Sem 1	BO101	
BO202	Evolution and the Tree of Life	5	Sem 1	BO101	
BPS202	Fundamentals in Aquatic Plant Science	5	Sem 1	BO101	See Note 1)
EOS213	Introduction to Ocean Science	10	Sem 1	BO101 & CH101 & PH101	See Note 1)
ZO2101	Entomology	5	Sem 1	none	
BO2101	Scientific Writing Skills	5	Sem 1	BO101	
ST2001	Statistics for Data Science 1	5	Sem 1	none	
ST1111	Probability Models	5	Sem 1	MA180	
MA211	Calculus I	5	Sem 1	at least one of CS102/MA161/MA180/MP180	
MA215	Mathematical Molecular Biology I	5	Sem 1	at least one of MA161/MA180/MP180	
MA284	Discrete Mathematics	5	Sem 1	at least one of CS102/MA161/MA180/MP180	
MP231	Mathematical Methods I	5	Sem 1	at least one of MA161/MA180/MP180	
MP236	Mechanics I	5	Sem 1	MP180	
PM208	Fundamental Concepts in Pharmacology	5	Sem 1	BO101 & CH101 & PH101	See Note 2)
PM209	Applied Concepts in Pharmacology	5	Sem 1	BO101 & CH101 & PH101	See Note 2)
PH2111	Makerspace Technologies	5	Sem 1	none	
PS3108	Design Thinking	5	Sem 1	none	
PS3123	Exploring Routes to Wellbeing	5	Sem 1	none	



MG3117	Intercultural Encounters	5	Sem 1	none	
HI2155	Cultural Heritage & Public History	5	Sem 1	none	
DT2114	Fail Better: Taking Risks and Developing Resilience	5	Sem 1	none	
LN2210	Scileanna Gaeilge don Eolaíocht 1	5	Sem 1	none	
BPS203	Plant Diversity, Physiology & Adaptation	5	Sem 2	BO101	See Note 1)
EOS2102	The Earth: From Core to Crust	10	Sem 2	BO101 & CH101 & PH101	See Note 1)
PAB2101	AgriBiosciences	5	Sem 2	BO101	See Note 1)
ST2002	Statistics for Data Science 2	5	Sem 2	none	
ST1112	Statistical Methods	5	Sem 2	MA180	
MA1993	Mathematics of Finance	5	Sem 2	MA180	
MA2111	Anailís	5	Sem 2	MA180	
MA2104	Matamaitic don Inbhuanaitheacht (Mathematics for Sustainability)	5	Sem 2	none	
MA203	Linear Alegbra	5	Sem 2	at least one of CS102/ MA161/MA180/MP180	
MA212	Calculus II	5	Sem 2	at least one of CS102/ MA161/MA180/MP180	
MA216	Mathematical Molecular Biology II	5	Sem 2	at least one of MA161/ MA180/MP180	
MP232	Mathematical Methods II	5	Sem 2	at least one of MA161/ MA180/MP180	
MP237	Mechanics II	5	Sem 2	MP180	
PH2108	Scaling Big Ideas	5	Sem 2	none	
AJ2114	Communicating Through Storytelling	5	Sem 2	none	
SP3211	Empathy in Action	5	Sem 2	none	
SP3212	Navigating the Digital World	5	Sem 2	none	
HI2156	Revolutionary Technologies, from Steam to Green	5	Sem 2	none	
LN2211	Scileanna Gaeilge don Eolaíocht 2	5	Sem 2	none	



BI3103	Career Development and Employability Skills	5	Sem 1 and Sem 2	none	
FR252	French	10	Sem 1 and Sem 2	none	
GR224	Beginner's German for Science	10	Sem 1 and Sem 2	none	
GR252	German	10	Sem 1 and Sem 2	none	
GR353	German	10	Sem 1 and Sem 2	none	
BSS2103/ BSS2104	Introduction to Sustainability	5	Sem 1 or Sem 2	none	
MG3113/ MG3115	Megatrends	5	Sem 1 or Sem 2	none	
ED2103/ ED2104	Design Your Life	5	Sem 1 or Sem 2	none	
PS3109/ PS3110/ PS3111/ PS3112	Vertically Integrated Project	5	Sem 1 or Sem 2	none	See Note 3)

Note 1). Some modules are offered as electives but subject to limited places.

Note 2). While PM208 and PM209 are offered as electives, only students assigned to the Pharmacology Pathway take the semester 2 module PM210.

Note 3). Registration to Vertically Integrated Projects, is subject to a call for expression of interest.



GY301 Science, Year-2 pathway and elective module allocations – a Guide.

In 2nd Year, there is a capacity limit on the places available in each pathway/elective. Students are allocated their pathways/electives based on their overall 1st-Year results and submitted pathways/electives preferences for 2nd Year.

Procedure for Allocation of Year 2 Pathways and Electives:

1. A student is allocated pathways and electives with consideration to student preferences as submitted to the College Office, via the "2nd Year Science Module Selection Form", by a specified date (usually mid-May).
2. Each student is allocated Year-2 modules to an exact total of 60 ECTS.
3. All students are allocated at minimum two Year-2 pathways.
4. Students must satisfy the Year-1 pre-requisite modules to enter a Year-2 pathway.
5. Each student will be allocated Year-2 pathways and modules that satisfy entry into at least one approved Year-3 stream, i.e., an approved Year-3 single-subject pathway or approved compatible dual-pathway.
6. Some pathways have quotas, i.e., a limited number of places. Where a student has specified a preference for a pathway for which there are no places remaining, then the student's next preference will be considered. Students progressing in June following the Summer Examinations are ranked by order of Overall Merit achieved in the First-Year Examinations. In the order of ranking, students with higher Overall Merit are reviewed first for the purposes of allocating pathways.
7. Some pathways are not approved compatible pathways at 2nd year. Where a student has specified a preference for a pathway which is not compatible with a pathway already allocated to the student, then the student's next preference will be considered.
8. Some pathways at Year 3 can only be taken as part of a dual-pathway stream. In allocating modules that satisfy entry into at least one Year-3 stream, where a student has been allocated a pathway which can only be taken in Year 3 as part of a dual-pathway, then the next compatible pathway in the student's preferences will also be allocated.
9. Students may be allocated up to three pathways at 2nd year. In the preferences survey, students are asked to select one of two options which provides indication that the student wishes to forego one of three 20-credit pathway allocations in favour of a selection of two pathways plus elective modules. Students provide ranked preferences for all electives, in addition to their ranked pathways via the preferences survey.





10. When pathway allocation has been completed for a student, and the total credits for allocated modules for those pathways is less than 60 credits, then modules from the elective list will be allocated to the student, with consideration to the student's preferences and timetable compatibility.
11. Information on pathways, electives, and Year-1 pre-requisite modules can be found in the GY301 Science Course Outline document. Students are provided with introductory talks on pathway options throughout First-Year Orientation. Students are provided with a Year-2 Advisory Programme, towards the end of Semester 2 of First Year, usually held in March, prior to submitting their preferences via the "2nd Year Science Module Selection Form" in mid-May.
12. Students progressing in June following the Summer Examinations, should expect allocations to be communicated to them, by email to their official university email address, no later than the end of July. Students progressing following the Autumn Examinations, should expect allocations to be communicated to them shortly after exam results are released for the Autumn sitting.





Places available in each 2nd Year Science Pathway can vary up or down, however the following provides number of places as an indicative guide. For guidance on how pathways are allocated to students please refer to the Procedure for Allocation of Year 2 Pathways and Electives.

2nd Year Pathway	Places
Anatomy	15
Pharmacology	20
Physiology	35
Medicinal Chemistry	20
Chemistry	120
Biochemistry	130
Microbiology	120
Plant and AgriBiosciences	44
Botany and Plant Science	55
Earth & Ocean Sciences	46
Zoology	68
Physics and Applied Physics/Physics and Climate Physics	80
Computing/Mathematical Studies and Computing	58
Mathematics	No place limit applies
Applied Mathematics	No place limit applies
Data Science	No place limit applies

Contacts:

Please contact your Academic Advisor in the first instance.

Programme Director: Dr Emma Holian,
Email: scienceGY301@universityofgalway.ie



(GY303) Biomedical Science (1BO1)

Modules:

Type	Choice		ECTS	Code	Module Title
Core	(3*15) + (3*5)	60	15	BO101	Biology
			15	PH101	Physics
			15	CH120	Chemistry: Molecular Science
			5	BM110	Introduction to Science Communication
			5	BM111	Introduction to Biomedical Research
			5	BM112	Biomedical Debates
	Total	60			

Note:

Where modules are indicated as Core, students will be automatically registered for these modules by the registration system and do not have to select them.

Contacts:

Programme Director: Dr. Helen Dodson, Room HBB-1020, Anatomy,
Human Biology Building, Ph: 091 492162,
Email: helen.dodson@universityofgalway.ie

First Year Co-ordinator: Dr Ailish Hynes, Physiology, Room 2008,
Human Biology Building, Ph: 091 493573,
Email: ailish.hynes@universityofgalway.ie

(GY304) Biotechnology (1BY1)

Modules:

Type	Choice	ECTS	Code	Module Title	
Core	(2*15 + 5*5)	55	15	BO101	Biology
			15	CH130	Chemistry: The World of the Molecule
			5	BG110	Biotechnology I
			5	BG111	Biotechnology Skills with French / German
			5	BG1101	Employability for Biotechnology
			5	ST2001	Statistics for Data Science 1
			5	ST2002	Statistics for Data Science 2
Optional	(1*5)	5	5	FR137	French for Biotechnology I
			5	GR1105	Beginners German for Biotechnology
			5	GR150	German for Biotechnology I
	Total	60			

Note:

Where modules are indicated as Core, students will be automatically registered for these modules by the registration system and do not have to select them.

Where modules are indicated as Optional, students must select their preferred options as follows: One of: FR137, GR1105 or GR150. Please contact Dr Flaus if you are unsure about your language selection.

Contacts:

Year 1-2 Coordinator: Dr. Andrew Flaus Room 131, Biochemistry, School of Biological and Chemical Sciences, Email: andrew.flaus@universityofgalway.ie

Dr. Flaus is the Advisor for all first year Biotechnology students in the Academic Advisory Scheme. Meetings should be arranged in advance.

Office hours: Dr Flaus is available flexibly for general queries. Please make contact by email to arrange a meeting.

(GY308) Environmental Science (1EV1)

Modules:

Type	Choice	ECTS	Code	Module Title	
Core	(1*15) + (3*5)	30	15	BO101	Biology
			5	EV102	Hot Topics in Environmental Science
			5	LW3114	Introduction to Law
			5	ST2001	Statistics for Data Science 1
Optional	(2*15)	30	15	CH101	Chemistry
			15	PH101	Physics
			15	CP102	Chemistry/Physics
	(1*15) + (3*5)		5	EV1101	Introduction to Irish Habitats
			5	PS122	Introductory Psychology 1
			5	PS124	Introductory Psychology 2
Total		60			

Note:

Where modules are indicated as Core, students will be automatically registered for these modules by the registration system and do not have to select them.

Where modules are indicated as Optional, students must select their preferred options as follows: Option 1: CH101: Chemistry and PH101: Physics

OR

Option 2: CP102: Chemistry/Physics, EV1101: Introduction to Irish Habitats, PS122: Introductory Psychology I, PS124: Introductory Psychology 2

Contacts:

Programme Director: Dr Nina Snigireva, Room 110, Block S, Centre for Environmental Science, Environmental Wing, Arts/Science Building,
Ph: 091 493334. Email: nina.snigireva@universityofgalway.ie

(GY309) Financial Mathematics & Economics (1FM1)

Modules:

Type	Choice	ECTS	Code	Module Title	
Core	(1*15 + 9*5)	60	15	MA180	Mathematics (Honours)
			5	AY104	Introduction to Financial Accounting
			5	CS103	Computer Science
			5	EC135	Principles of Microeconomics
			5	EC136	Principles of Macroeconomics
			5	EC1108	Skills for Economics 1
			5	MP191	Mathematical Methods I
			5	MA1993	Mathematics of Finance
			5	ST1111	Probability Methods
			5	ST1112	Statistical Methods
	Total	60			

Note:

Where modules are indicated as Core, students will be automatically registered for these modules by the registration system and do not have to select them.

Contacts:

Dr Nina Snigireva, Room 110, Block S
 Email: nina.snigireva@universityofgalway.ie

Mr. Cian Twomey, Room 204, 1st Floor, Cairnes Building, Ph: 091 493121,
 Email: cian.twomey@universityofgalway.ie, (Economics)

(GY310) Marine Science (1MR1)

Modules:

Type	Choice	ECTS	Code	Module Title	
Core	(3*15)	45	15	BO101	Biology
			15	CH120	Chemistry: Molecular Science
			15	PH101	Physics
Optional	(1*15)	15	15	MA180	Mathematics (Honours)
			15	CS102	Computer Science
			15	MA161	Mathematical Studies
			15	MP180	Applied Mathematics
	Total	60			

Note:

Where modules are indicated as Core, students will be automatically registered for these modules by the registration system and do not have to select them.

Where modules are indicated as Optional, students must select their preferred options as follows: One of: MA180: Mathematics (Honours)
MA161: Mathematical Studies MP180: Applied Mathematics CS102: Computer Science

First Year Co-ordinator:

Prof Mark Johnson, Room 202,
Ryan Annexe, Ph: 091 495864, Email: mark.johnson@universityofgalway.ie

(GY313) Occupational Health & Safety Management (1OHM1)

Modules:

Type	Choice	ECTS	Code	Module Title	
Core	(2*15 + 3*5)	45	15	BO101	Biology
			15	CP102	Chemistry/Physics
			5	IE130	Communications & Computing
			5	ME1110	Introduction to Environmental Health and Safety
			5	LW3114	Introduction to Law
Optional	(1*15)	15	15	MA180	Mathematics (Honours)
			15	MA161	Mathematical Studies
	Total	60			

Note:

Where modules are indicated as Core, students will be automatically registered for these modules by the registration system and do not have to select them.

Where modules are indicated as Optional, students must select their preferred options as follows: One of: MA180: Mathematics (Honours) or MA161: Mathematical Studies

Contacts:

Programme Director: Dr Marie Coggins, Room PHY233,
Physics, School of Natural Sciences, Arts/Science Building, Ph: 091 495056.
Email: marie.coggins@universityofgalway.ie

Administrator: Cáit Fahy; Room PHY222, Physics, School of Natural Sciences,
Arts / Science Concourse, Ph: 091 492770;
Email: cait.fahy@universityofgalway.ie

(GY314) Earth and Ocean Sciences (1EH1)

Modules:

Type	Choice	ECTS	Code	Module Title	
Core	(3*15)	45	15	BO101	Biology
			15	CH130	Chemistry: The World of the Molecule
			5	PH101	Physics
Optional	(1*15)	15	15	MA180	Mathematics (Honours)
			15	MA161	Mathematical Studies
			15	MP180	Applied Mathematics
	Total	60			

Note:

Where modules are indicated as Core, students will be automatically registered for these modules by the registration system and do not have to select them.

Where modules are indicated as Optional, students must select their preferred options as follows: One of: MA180: Mathematics (Honours) or MA161: Mathematical Studies or MP180: Applied Mathematics

Contacts:

Programme Director: Dr. Eve Daly, Earth and Ocean Sciences, School of Natural Sciences, Quadrangle Building. Ph: 091 492183,
Email: eve.daly@universityofgalway.ie

(GY318) Biopharmaceutical Chemistry (1BPC1)

Modules:

Type	Choice	ECTS	Code	Module Title	
Core	(3*15)	45	15	BO101	Biology
			15	CH101	Chemistry
			15	PH101	Physics
Optional	(1*15)	15	15	CS102	Computer Science
			15	MA180	Mathematics (Honours)
			15	MA161	Mathematical Studies
			15	MP180	Applied Mathematics
	Total	60			

Note:

Where modules are indicated as Core, students will be automatically registered for these modules by the registration system and do not have to select them.

Where modules are indicated as Optional, students must select their preferred options as follows: One of: CS102: Computer Science or MA180: Mathematics (Honours) or MA161: Mathematical Studies or MP180: Applied Mathematics

Contacts:

Programme Director: Prof. Peter Crowley, Room 220, Chemistry, School of Biological and Chemical Sciences, Orbsen Building, Ph: 091 492480, Email: peter.crowley@universityofgalway.ie

GY319: Mathematical Science (1BMS1)

Modules:

Type	Choice	ECTS	Code	Module Title	
Core	30 + (3*5)	45	15	MA180	Mathematics (Honours)
			15	MP180	Applied Mathematics
			5	CS103	Computer Science
			5	ST1111	Probability Models
			5	ST1112	Statistical Methods
Optional	(1*15)	15	15	BO101	Biology
			15	CH130	Chemistry: The World of the Molecule
			15	PH101	Physics
	Total	60			

Note:

Where modules are indicated as Core, students will be automatically registered for these modules by the registration system and do not have to select them.

Where modules are indicated as Optional, students must select their preferred options as follows: One of: BO101: Biology CH130: Chemistry: The World of the Molecule PH101: Physics

Students are also expected to attend the Mathematical Science Seminar Series. Information regarding the schedule of events within the Mathematical Science Seminar Series will be provided via the 1BMS1 course Canvas page.

Contacts:

Dr Martin Meere, Room ADB-G005, Áras de Brún, Ph: 091 493087,
Email: martin.meere@universityofgalway.ie

(GY320) Physics (Applied, Astrophysics, Biomedical, Climate, Theoretical) (1PHO1)

Modules:

Type	Choice	ECTS	Code	Module Title	
Core	(1*15 +1*10+ 1*5)	30	15	PH101	Physics
			10	PH109	Physics Special Topics
			5	CS103	Computer Science
Optional	(1*15)	15	15	MA180	Mathematics (Honours)
			15	MA161	Mathematical Studies
	(1*15)	15	15	BO101	Biology
			15	MP180	Applied Mathematics
			15	CH101	Chemistry
Total		60			

Note:

Where modules are indicated as Core, students will be automatically registered for these modules by the registration system and do not have to select them.

Where modules are indicated as Optional, students must select their preferred options as follows: One of: MA180: Mathematics (Honours) or MA161: Mathematical Studies

One of: BO101: Biology or MP180: Applied Mathematics or CH101: Chemistry

Contacts:

Dr. Alexander Goncharov, Physics, School of Natural Sciences,
Arts/Science Building, Ph: 091 495189,
Email: alexander.goncharov@universityofgalway.ie

(GY321) Genetics and Genomics (1BGG1)

Modules:

Type	Choice	ECTS	Code	Module Title	
Core	(1*15 +1*10 + 1*5)	30	15	BO101	Biology
			10	CH120	Chemistry: Molecular Science
			15	MA180	Mathematics
			5	BI1101	Introduction to Genetics & Genomics
			5	BI1103	Genetics and Genomics: Research and Communication
			5	CS103	Computer Science
	Total	60			

Note:

Where modules are indicated as Core, students will be automatically registered for these modules by the registration system and do not have to select them.

Contacts:

Programme Director: Prof. Derek Morris, Room 106, Biochemistry, School of Biological and Chemical Sciences, Arts/Science Building, Ph: 091 494439, Email: derek.morris@universityofgalway.ie

Deputy Programme Director: Dr Elaine Dunleavy, Ground Floor North, Biomedical Sciences Building, Ph: 091 494046, Email: elaine.dunleavy@universityofgalway.ie



(GY322) Agricultural Science (1AGS1)

Modules:

Type	Choice	ECTS	Code	Module Title	
Core	(3*15 + 3*5)	60	15	BO101	Biology
			10	CH130	Chemistry: The World of the Molecule
			15	PH101	Physics
			5	AG1101	Introduction to Agricultural Science
			5	DEV1100	Introduction to Sustainable Development I
			5	DEV1102	Introduction to Sustainable Agriculture
	Total	60			

Note:

Where modules are indicated as Core, students will be automatically registered for these modules by the registration system and do not have to select them.

Contacts:

Programme Director: Dr. David Styles,
Email: david.styles@universityofgalway.ie



(GY350) Computer Science (1BCT1)

Modules:

Type	Choice	ECTS	Code	Module Title
Core		5	EE130	Fundamentals of Electrical & Electronic Engineering 1
		5	CT1114	Web Development
		5	PH150	Introduction to Physics
		10	CT101	Computing Systems
		10	CT102	Algorithms & Information Systems
		10	CT103	Programming
		5	CT1112	Professional Skills I
Optional	(1*10)	10	MA160	Mathematics
		10	MA190	Mathematics (honours)
	Total	60		

Note:

Where modules are indicated as Core, students will be automatically registered for these modules by the registration system and do not have to select them.

Where modules are indicated as Optional, students must select their preferred options as follows: One of: MA160: Mathematics or MA190: Mathematics (Honours)

Contacts:

Programme Director: Dr. Colm O'Riordan, 3rd floor, Computer Science Building,
Ph: 091 493669,
Email: colm.oriordan@universityofgalway.ie

Programme Administrator: Geraldine Healy, 3rd floor, Computer Science Building,
Ph: 091 493835,
Email: Computerscience@universityofgalway.ie





(GY401) Engineering (Undenominated) (1EG1)

Modules:

Type	ECTS	Code	Module Title
Core	5	CH140	Engineering Chemistry
	5	CT1110	Engineering Computing I
	5	EI160	Engineering Graphics
	5	MA140	Engineering Calculus
	5	MP120	Engineering Mechanics
	5	CT1111	Engineering Computing II
	10	EI150	Engineering Design
	5	MM140	Engineering Mathematical Methods
	5	PH140	Engineering Physics
10	EI140	Fundamentals of Engineering	
Total	60		

Note:

Where modules are indicated as Core, students will be automatically registered for these modules by the registration system and do not have to select them.

Contacts:

Programme Director: Prof. Mark Healy, ENG-1038,
Alice Perry Engineering Building, Ph: 091 495364,
Email: mark.healy@universityofgalway.ie

Programme Administrator: Serena Lawless, ENG-1046,
Alice Perry Engineering Building, Ph: 49 2170,
Email: serena.lawless@universityofgalway.ie





(GY402) Civil Engineering (1BE1)

Modules:

Type	ECTS	Code	Module Title
Core	5	CH140	Engineering Chemistry
	5	CT1110	Engineering Computing I
	5	EI160	Engineering Graphics
	5	MA140	Engineering Calculus
	5	MP120	Engineering Mechanics
	5	CT1111	Engineering Computing II
	10	EI150	Engineering Design
	5	MM140	Engineering Mathematical Methods
	5	PH140	Engineering Physics
10	EI140	Fundamentals of Engineering	
Total	60		

Note:

Where modules are indicated as Core, students will be automatically registered for these modules by the registration system and do not have to select them.

Contacts:

Programme Director: Dr. Patrick McGetrick, ENG-1040,
Alice Perry Engineering Building, Ph: 091 492571,
Email: patrick.mcgetrick@universityofgalway.ie

Programme Administrator: Serena Lawless, ENG-1046,
Alice Perry Engineering Building, Ph: 49 2170,
Email: serena.lawless@universityofgalway.ie



(GY405) Mechanical Engineering (1BM1)

Modules:

Type	ECTS	Code	Module Title
Core	5	CH140	Engineering Chemistry
	5	CT1110	Engineering Computing I
	5	EI160	Engineering Graphics
	5	MA140	Engineering Calculus
	5	MP120	Engineering Mechanics
	5	CT1111	Engineering Computing II
	10	EI150	Engineering Design
	5	MM140	Engineering Mathematical Methods
	5	PH140	Engineering Physics
10	EI140	Fundamentals of Engineering	
Total	60		

Note:

Where modules are indicated as Core, students will be automatically registered for these modules by the registration system and do not have to select them.

Contacts:

Programme Director: Dr. Eoin King, ENG-2029 Alice Perry Engineering Building,
Ph: 091 492285,
Email: eoin.king@universityofgalway.ie

Programme Administrator: Dave Finn, ENG-2050 Alice Perry Engineering Building,
Ph: 091 492223,
Email: dave.finn@universityofgalway.ie





(GY406) Electronic & Computer Engineering (1BP1)

Modules:

Type	ECTS	Code	Module Title
Core	5	CT1110	Engineering Computing I
	5	EI160	Engineering Graphics
	5	MA140	Engineering Calculus
	5	MP120	Engineering Mechanics
	5	CT1111	Engineering Computing II
	10	EI150	Engineering Design
	5	MM140	Engineering Mathematical Methods
	5	PH140	Engineering Physics
	10	EI140	Fundamentals of Engineering
	EI140	Fundamentals of Engineering	Fundamentals of Engineering
Total	60		

Note:

Where modules are indicated as Core, students will be automatically registered for these modules by the registration system and do not have to select them.

Contacts:

Programme Director: Dr Adnan Elahi, ENG-3048 Alice Perry Engineering Building, Ph: 091 493538,
Email: adnan.elahi@universityofgalway.ie

Programme Administrator: Mary Costello, ENG-3050 Alice Perry Engineering Building, Ph: 49 2728,
Email: mary.costello@universityofgalway.ie



(GY408) Biomedical Engineering (1BG1)

Modules:

Type	ECTS	Code	Module Title
Core	5	CH140	Engineering Chemistry
	5	CT1110	Engineering Computing I
	5	EI160	Engineering Graphics
	5	MA140	Engineering Calculus
	5	MP120	Engineering Mechanics
	5	CT1111	Engineering Computing II
	10	EI150	Engineering Design
	5	MM140	Engineering Mathematical Methods
	5	PH140	Engineering Physics
	10	EI140	Fundamentals of Engineering
Total	60		

Note:

Where modules are indicated as Core, students will be automatically registered for these modules by the registration system and do not have to select them.

Contacts:

Programme Director: Dr. Pat McGarry, ENG-3039 Alice Perry Engineering Building,
Ph: 091 493165,

Email: patrick.mcgarry@universityofgalway.ie

Programme Administrator: Aisling Rooney, Alice Perry Engineering Building.

Email: aisling.rooney@universityofgalway.ie

(GY410) Project & Construction Management (1BCM1)

Modules:

Type	ECTS	Code	Module Title
Core	5	AY104	Introduction to Financial Accounting
	5	CT1110	Engineering Computing I
	5	EI160	Engineering Graphics
	5	MG3116	Management, Enterprise & Society
	5	AY105	Management & Enterprise
	5	CE119	Fundamentals of Project & Construction Management
	5	PH150	Introduction to Physics
	15	CE141	Introduction to Engineering & Design
	10	MA1161	Mathematical Studies
	10	EI140	Fundamentals of Engineering
Total	60		

Note:

Where modules are indicated as Core, students will be automatically registered for these modules by the registration system and do not have to select them.

Contacts:

Programme Director: Dr. Indiana Olbert, ENG-1022 Alice Perry Engineering Building,
Ph: 091 493208,

Email: indiana.olbert@universityofgalway.ie

Programme Administrator: Victoria Mossman, ENG-1046 Alice Perry Engineering Building,

Email: victoria.mossman@universityofgalway.ie



(GY413) Energy Systems Engineering (1BSE1)

Modules:

Type	ECTS	Code	Module Title
Core	5	CH140	Engineering Chemistry
	5	CT1110	Engineering Computing I
	5	EI160	Engineering Graphics
	5	MA140	Engineering Calculus
	5	MP120	Engineering Mechanics
	5	CT1111	Engineering Computing II
	10	EI150	Engineering Design
	5	MM140	Engineering Mathematical Methods
	5	PH140	Engineering Physics
	10	EI140	Fundamentals of Engineering
Total	60		

Note:

Where modules are indicated as Core, students will be automatically registered for these modules by the registration system and do not have to select them.

Contacts:

Programme Director: Dr Magdalena Hajdukiewicz, ENG-2038 Alice Perry
Engineering Building,
Email: magdalena.hajdukiewicz@universityofgalway.ie

Programme Administrator: Deirdre Duane, ENG-1046 Alice Perry Engineering
Building,
Email: deirdre.duane@universityofgalway.ie



(GY414) Electrical & Electronic Engineering (1BLE1)

Modules:

Type	ECTS	Code	Module Title
Core	5	CH140	Engineering Chemistry
	5	CT1110	Engineering Computing I
	5	EI160	Engineering Graphics
	5	MA140	Engineering Calculus
	5	MP120	Engineering Mechanics
	5	CT1111	Engineering Computing II
	10	EI150	Engineering Design
	5	MM140	Engineering Mathematical Methods
	5	PH140	Engineering Physics
	10	EI140	Fundamentals of Engineering
Total	60		

Note:

Where modules are indicated as Core, students will be automatically registered for these modules by the registration system and do not have to select them.

Contacts:

Programme Director: Dr. Maeve Duffy, ENG-3046 Alice Perry Engineering Building,
Ph: 091 493972,
Email: maeve.duffy@universityofgalway.ie

Programme Administrator: Mary Costello, ENG-3050 Alice Perry Engineering Building,
Ph: 091 492728,
Email: mary.costello@universityofgalway.ie



The Geec

The Geec (Galway energy-efficient car) is an electric car built by University of Galway engineering students. It is the most efficient car ever built in Ireland and one of the best in the world. The Geec has run at 354 km per kilowatt-hour on a 15-km urban circuit, equivalent to over 10,000 miles per gallon, or 200 times as efficient as most cars on the road.

The team competes every year in Shell Eco-marathon against 150 of Europe's best engineering schools to achieve the lowest energy use. In 2018, the Geec won the Technical Innovation Award for a novel aerodynamic design. In 2023 and 2024, a new carbon-fibre monocoque car raced at Nogaro circuit in France with advanced data acquisition and analysis.

In Autumn, the team will start designing and building an even better Geec, to race at Silesia Ring next June. There are places for students from first year to fifth year Engineering. Watch out for posters and email announcements, and follow @theGeec on Instagram.





Timetables

Programme timetables can be found here:



Regulations for Courses of Study and Examinations

After satisfying both programme entry and CAO Point requirements, undergraduate students in the College of Science & Engineering can attend a course of study over at least four years leading to the award of an Honours degree (NFQ Level 8), provided they have registered for one of the following degree programmes:

1. BE Civil Engineering
2. BE Biomedical Engineering
3. BE Electrical & Electronic Engineering
4. BE Electronic & Computer Engineering
5. BE Mechanical Engineering
6. BE Energy Systems Engineering
7. BSc Computer Science & Information Technology
8. BSc Project & Construction Management
9. BSc Science
10. BSc Agricultural Science
11. BSc Biomedical Science
12. BSc Biopharmaceutical Science
13. BSc Biotechnology
14. BSc Earth & Ocean Sciences
15. BSc Environmental Science
16. BSc Occupational Health & Safety Management
17. BSc Financial Mathematics & Economics
18. BSc Genetics & Genomics
19. BSc Marine Science
20. BSc Mathematical Science
21. BSc Physics



Students will also be admitted to the First-Year programme BE Engineering (Undenominated). On successful completion of the First-Year University Examinations in Engineering (Undenominated), students may progress to one of the following programmes:

- BE in Civil Engineering
- BE in Biomedical Engineering
- BE in Electrical & Electronic Engineering
- BE in Electronic & Computer Engineering
- BE in Mechanical Engineering
- BSc in Computer Science & Information Technology
- BE in Energy Systems Engineering
- BSc in Project & Construction Management

The School of Engineering Programme and Transfer Sub-committee will endeavour to allocate places in accordance with the first choices of the students. If demand for a particular programme exceeds the number of places available, students will receive offers for that programme in accordance with their overall performance at the First-Year University Examination in Engineering. Additional requirements may be set out by the School of Engineering.

Programme and Module Requirements:

In each year of a degree programme, students must register for modules to a total credit value of 60 ECTS. The schedule of modules for each programme is available on the College of Science and Engineering website.

The number of students to be admitted to any module in the College will be determined by the availability of places. If necessary, entry into a module in Second Year, Third Year, or Fourth Year will be determined by the overall performance at the previous-year examination.

Students are required to engage fully in all module activities, e.g., lectures, practicals, fieldwork, tutorials, assignments/homework, in-class tests, classroom response systems (where in use), and exams.

In addition to attendance at lectures, practicals and other work during university terms, students may be required to attend for fieldwork or complete a professional experience placement in a specified area relevant to their programme of study during university vacations. Arrangements in relation to fieldwork or professional experience will be coordinated by the school concerned.

Where placements form part of the programme they must be passed outright and cannot be passed by compensation. The timing of placements will vary depending on the course of study. On a number of programmes placements are graded Pass/Fail and these Pass/Fail results are omitted from the overall calculation for the year. Details of all non-compensatable Science and Engineering modules are listed in the following table;





Course Instance	Module Code	Description
3BCM1	CE3108	Professional Experience Programme in Project and Construction Management
3BE4	CE3110	Professional Experience Programme in Civil Engineering
3BG1	BME3101	Biomedical Professional Experience Programme
3BM1	ME3107	Machine Design Project
3BM4	ME3109	Mechanical Engineering Professional Experience Programme
3BP1 & 3BLE1	EE3126	3rd Year Project
3BP4, 3BLE4, 4BLE1 & 4BP1	EE3127	Electrical & Electronic Discipline BE Professional Experience Programme
3BSE1	CE3118	Design of Energy Systems for the Built Environment
3BSE1 & 3BSE4	EE3125	Energy Systems Electrical Design project
3BSE4	EG3106	Energy Systems B.E. Professional Experience Programme
4BE1	CE4104	Professional Experience Programme in Civil Engineering
4BG1	BME4107	Biomedical Professional Experience Programme (BE+ME)
4BG1	BME4106	Biomedical Group Project
4BG4	BME4108	Biomedical Professional Experience Programme Programme 4 Year BE
4BG4	BME4102	Biomedical Engineering Project
4BM1	ME4111	Mechanical Engineering Professional Experience Programme
4BM4	ME4103	Mechanical Engineering Final Year Project
4BP4	CT434	Electronic & Computer Engineering Project
4BP4, 4BLE4	EE443	BE Project
4BSE1	EG4101	Energy Systems M.E. Professional Experience Programme
4EHS1	IE453	Health & Safety Project





Time Limits:

A time limit of two years applies to the successful completion of examinations in each year of a programme. These are detailed in the University of Galway Undergraduate Marks and Standards.

Students failing to complete examinations within the specified periods will be ineligible to proceed further towards their degree in this University.

Students may have the option to exit their degree programme with an ordinary BSc/BTech Degree (NFQ Level 7) once their Third-Year examinations have been passed as a whole.

Grading Scheme:

Official marks are not available for Semester-1 assessments until after the First-Sitting/Summer Exam Board Meeting which usually takes place in June. Provisional grades for Semester-1 modules are however made available to students early in Semester 2 and follow the grade scheme below.

Percentage	Grade
70 - 100	A
60 - 69	B
50 - 59	C
40 - 49	D
35 - 39	E+
30 - 34	E-
0 - 29	F

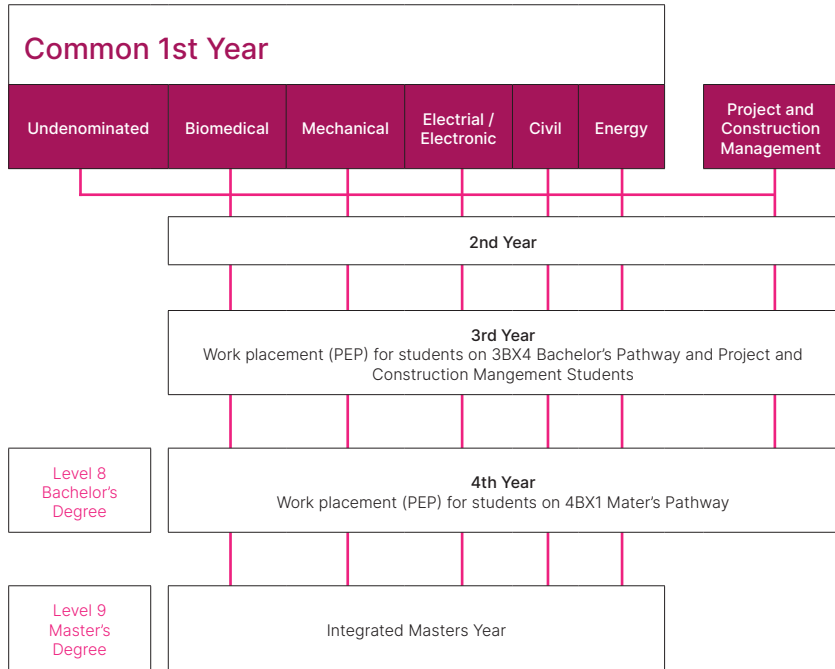
These grades are provisional only and are subject to correction until they are confirmed at the Summer Exam Board Meeting, after which results are released formally to students with a transcript including marks for each module and an overall calculation for the year.”

Progression to the Next Year:

General details on progression are contained in the University of Galway Undergraduate Marks and Standards. Two programmes require some explanation and more details provided here.

1.The GY301 Bachelor of Science degree progression structure includes allocation of students to pathways of study upon progressing to Second Year in a process which combines the stated preferences of students and student performance at first year examinations in order to fairly distribute places in pathways, particularly where a limiting quota of places apply.

2.Progression in Engineering programmes that incorporate an Integrated Masters Year is displayed in the diagram on page 49. For Years 1 to 4 of the programme, Undergraduate Marks and Standards apply. For Year 5 of the programme, Postgraduate Marks and Standards apply. In order to progress to the Integrated Masters Year, students must attain an overall grade of at least H2.2 (Second Class Honours Grade 2) in the Level-8 Bachelors degree awarded on completion of Year 4 of the programme.





Academic Integrity

In response to the challenges this changing academic integrity landscape brings, the University of Galway approved a new Academic Integrity Policy in 2022. This is available here: universityofgalway.ie/academicintegrity

Marks and Standards

The University Marks and Standards are a set of Examination Regulations and are available at the following website: www.universityofgalway.ie/exams/policies-procedures/

Laboratories, fieldwork, continuous assessments and projects are not normally repeatable in the same academic year.

Science Programmes Regulations – Sub-module Components

(applying to GY301, GY303, 304, 308, 309, 310, 313, 314, 318, 319, 320, 321, 322)

In addition to having to obtain an overall module mark of at least 40% in a 15-credit First-Year module in Science programmes, a student must obtain at least 35% of the module's continuous assessment mark in order to pass the module. Where a module is assessed on the basis of 60% for written exams and 40% for continuous assessment, this equates to obtaining at least 14 of the 40% awarded for continuous assessment.

There is no opportunity to complete or retake continuous assessment in the period between the Summer examinations and the Autumn examinations. Accordingly, a student who fails to obtain a mark of at least 35% in the continuous assessment component of a 15-credit First-Year module at the Summer examinations cannot pass the module at the Autumn sitting and must re-register for the module as a First-Year repeat student the following year. A student repeating a module the following year must re-engage in all parts of the module.





Scholarships and Prizes

A wide range of scholarships and prizes are available to current and potential students in the College of Science and Engineering. universityofgalway.ie/science-engineering/scholarships/





Foirgneamh na hInnealtóireacht Alice Perry Alice Perry Engineering Building

Seomraí Seimineáir
Seminar Rooms

Saotharlanna
Laboratories

Seomra Boid
Boardroom

Ceantair Taighde
Research Areas

Ionaid Léitheoireachta
Lecture Venues

Seomraí Ríomhaireachta
Computer Suites

Innealtóireacht Bhithleighis
Biomedical Engineering

Óifig Innealtóireachta Meicniúil
Mechanical Engineering Office

Óifig Innealtóireachta Fuinnimh
Energy Engineering Office

Innealtóireacht Leictreonaic & Leictreonaic
Electrical & Electronic Engineering

Innealtóireachta Sibhialta
Civil Engineering

Óifig an Choláiste
College Office

Leithris
Toilets

Staire
Stairs

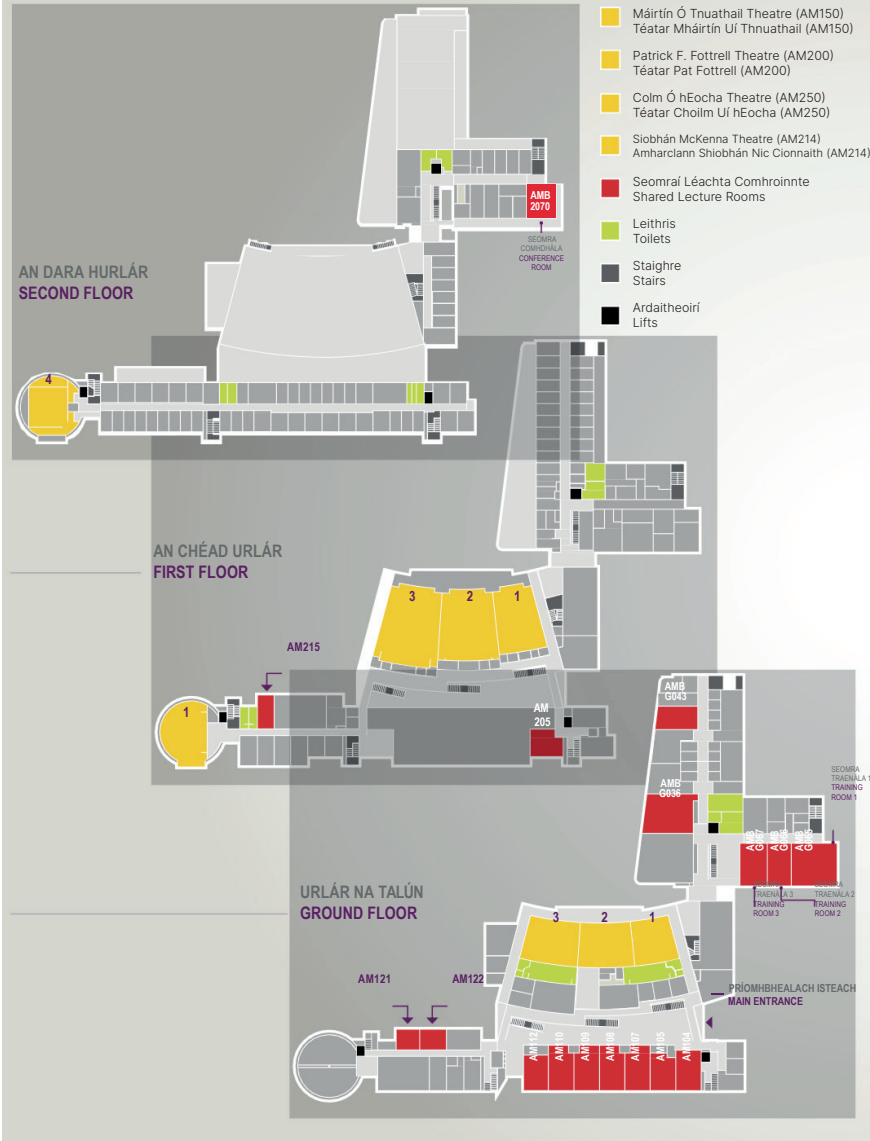
Bialann
Restaurant

Ardaitheoir
Lifts





Áras Dán na Mílaoise (AM/AMB) Arts Millennium Building (AM/AMB)







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