

James Watt School of Engineering

# Undergraduate

Student Handbook

2023-2024



# ABOUT THIS HANDBOOK

This handbook is intended to answer many of the day-to-day questions of students in the School of Engineering. It will be of great practical benefit during your time as an undergraduate student. It will help you understand the organisation of the School and your own degree course, and it contains invaluable information about examinations and what is required from you to progress towards graduation. It will act as a pointer towards useful sources of help should you encounter any problems. Keep your handbook safe as it will be a useful reference throughout the year. This handbook is updated annually, so please take time to study it again.

Further details regarding University and College Regulations can be found in the University Regulations on the web at <a href="https://www.gla.ac.uk/myglasgow/apg/policies/uniregs/">https://www.gla.ac.uk/myglasgow/apg/policies/uniregs/</a>

Please note that separate handbooks are produced for students studying for degrees in Singapore and China and students should refer to these handbooks for the regulations and additional information relevant to their studies. This handbook is for students studying in Glasgow.

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# Welcome from the Head of James Watt School of Engineering

Welcome to the University of Glasgow and to the School of Engineering. You are joining — or returning to — one of the oldest and most prestigious Schools of Engineering in the world.

Engineering at Glasgow has a long and proud history going back several centuries. Notable landmarks include:

- James Watt, developer of the steam engine that led to the Industrial Revolution, was a mathematical instrument maker at the University. The SI unit of power is named after him.
- The Regius Chair of Civil Engineering and Mechanics was established by Queen Victoria in 1840, and the School is the oldest University School of Engineering in the UK. The Faculty of Engineering followed in 1923.
- The first Engineering degree programme in the UK, which started in 1872.
- The current School was formed in August 2010 from four Departments in recognition of the cross disciplinary nature of engineering and now comprises five disciplines in Aerospace Engineering, Biomedical Engineering, Civil Engineering, Electronics and Electrical Engineering and Mechanical Engineering.
- In July 2019 the School was renamed the James Watt School of Engineering to mark the 200<sup>th</sup> anniversary of Watt's death and to commemorate Watt's close ties to the University of Glasgow and in celebration of his life and legacy.

Engineering is a creative discipline. A fundamental understanding of science is combined with sound principles of design to invent, make or improve things that do not exist in nature. It is concerned with improving the quality of life and advancing technology for the benefit of humanity.

Some of your predecessors at Glasgow have been true pioneers in this exciting field:

- Lord Kelvin (William Thomson) physicist and engineer, after whom the SI unit of temperature is named
- John Logie Baird inventor of television
- William Rankine founder of thermodynamics, who gave his name to the Fahrenheit equivalent of the Kelvin temperature scale.

Nowadays graduates from the School work in all engineering sectors and have been responsible for innovations as diverse as developing the video recorder through to designing schemes for improving the water supply in Africa. In addition, several multimillion pound start-up businesses have been launched by Glasgow engineers in the last few years.

As a student in the School of Engineering, your responsibility is to seize the opportunities for learning that you will find here — whether in lectures, tutorials, laboratories, project work, or in discussion with the teaching and technical staff, to strive for the highest classification of degree commensurate with your talents, and to forge for yourself a distinguished engineering career. We really do expect you, as an engineering graduate from the University of Glasgow with its illustrious forebears, to go out and in some way change the world.

The subjects you have chosen to study are at the cutting edge of technology, and we continually update courses and practices to maintain this position and provide a state-of-the-art education. You will find that the more diligent you are in your studies, the more you will enjoy them.

We wish you every success in your undergraduate study.

**Prof. Manuel Salmeron-Sanchez** 

Head of the James Watt School of Engineering

# **Introduction**

The University of Glasgow, founded in 1451, is the second oldest university in Scotland and the fourth oldest in the UK. With over 35,000 students it is also one of the largest and offers study in a wide range of subjects at all levels in four Colleges. The University is set in the West End of Glasgow, overlooking Kelvingrove Park and the River Kelvin, and close to the Botanical Garden and some areas of delightful Victorian architecture. Glasgow itself is one of the world's outstanding Victorian cities. Although its growth was based on heavy industry and shipping, it now has a quite different cosmopolitan atmosphere. Glasgow hosted the 2014 Commonwealth Games and many venues throughout the city were developed or upgraded including the Sir Chris Hoy Velodrome, Emirates Arena and The Hydro and used to host the 2018 European Championships. More recently Glasgow was the host of COP26 - a critical event in building sustainable future. We are only a short distance from Edinburgh, the Scottish capital, and the spectacular scenery and opportunities for outdoor recreation offered by the Western Highlands are within easy reach.

# James Watt School of Engineering

The University is structured into Colleges and Schools. Professor Manuel Salmeron-Sanchez is Head of the School of Engineering and the School is part of the College of Science and Engineering, whose Head is Professor Muffy Calder.

Unlike many other Schools, Engineering has separate structures for research and teaching. Professor Scott Roy is Convener of Learning and Teaching and has overall responsibility for teaching within the School. Teaching has been organised into five Disciplines, each with a Head of Discipline:

Aerospace Engineering Biomedical Engineering Civil Engineering Electronics and Electrical Eng. Mechanical Engineering Dr Ian Taylor Dr Henrik Gollee Prof Fiona Bradley Dr Euan McGookin Dr Phil Dobson ian.taylor@glasgow.ac.uk henrik.gollee@glasgow.ac.uk fiona.bradley@glasgow.ac.uk euan.mcgookin@glasgow.ac.uk phil.dobson@glasgow.ac.uk

Administrative support for teaching throughout the School is provided by the **School Teaching Office**, located in room 620 of the James Watt Building (South). The Teaching Office is the location for any general enquiry related to teaching. There is also a lot of helpful information on the Teaching Office Moodle page: <a href="https://moodle.gla.ac.uk/course/view.php?id=23606">https://moodle.gla.ac.uk/course/view.php?id=23606</a>

Contact details for the School Teaching Office:

- Email: Eng-teachingoffice@glasgow.ac.uk Please add your student number in the subject field
- Telephone: 0141 330 7558
- Face-to-face: JWS620, Mon Fri, 10am 4pm
- Student Support Officer: Lewis Gibb

In addition to delivering our engineering Degree Programmes in Glasgow, the School of Engineering also delivers engineering Degree Programmes overseas in Singapore (in conjunction with the Singapore Institute of Technology) and China (in conjunction with the University of Electronic Science and Technology of China (UESTC) in Chengdu and in Hainan).

# **Student Academic Life**

# You are Responsible for Your Success

The University provides staff, facilities and various organised courses to enable you to acquire an education and understanding of the subject you are studying. The quality of this provision is constantly monitored, and we pride ourselves on the high standards maintained. It is **your** responsibility to use the provision made by the university most effectively so as to succeed in your chosen subject. **You** must surmount any perceived shortcomings in the system, for these cannot be used to excuse any failure by you to apply yourself effectively to your studies. You will be judged by your results, so make sure that they reflect your best effort.

## Health & Wellbeing

Studying for a degree can be stressful at times. The work can be challenging, your timetable may be busy and you may have impending deadlines for coursework. Living away from home and/or balancing part time work and study can also add to the stress. It is important that you look after your physical and mental health whilst studying. The University has online help and advice available for students:

#### https://www.gla.ac.uk/myglasgow/students/safetyhealth/

If you do feel stress levels are becoming unmanageable it is important that you seek help as soon as possible. Speak to your friends and family or contact the Student Support Officer (Lewis Gibb) or your Adviser of Studies: <a href="https://www.gla.ac.uk/media/Media\_792272\_smxx.pdf">https://www.gla.ac.uk/media/Media\_792272\_smxx.pdf</a>. It may be that the online support and advice may be sufficient, but it may be that you should attend the self-help groups or even one to one counselling. You can find out more at:

#### **University of Glasgow Counselling Service**

The University of Glasgow Counselling Service supports students to manage their mental health and to build strategies that will help them successfully complete their course of studies.

The Service also offers a series of Wellbeing Masterclasses on topics such as managing stress and overcoming procrastination.

You can find further information, and self-refer, via the QR code below:



https://www.gla.ac.uk/myglasgow/counselling/

### Managing your Time

You decide how much time to spend on your various activities as a student. The way that you allocate your time to your studies has an important effect on your success, so make sure that you allocate sufficient time to your studies. The degree exams at the end of the semester may seem far off, but it is vital to review your lecture notes on a continuous basis and keep up to date with tutorials and class exercises. Last minute revision is no substitute.

In addition to lectures and laboratories your course also involves a considerable amount of project work. This is interesting, enjoyable, and it may seem like the more time spent on it the better will be the results. It is therefore easy to be drawn into spending too much time on project work to the detriment of your other studies. Strive to achieve the best that you can within the suggested time limits and resist the temptation to spend more time on trying to improve the project results. As with all assessment, it is the **quality** of the work and how it addresses the intended learning outcomes which is important rather than the **quantity** of work produced.

As a rough rule of thumb, in the UK a module worth 10 credits is notionally linked to an average of 100 hours of focussed student work—including labs, lectures and individual study—although of course only you can judge which courses will require more of your time and which less

## Your Responsibility to Attend Classes

Your funder, the university and the staff all require a certain level of commitment from students. The grant awarding authorities, as representatives of the taxpayer, require that you attend the course for which they are paying – be it in person or during compulsory online events. If you fail to attend classes regularly then the University is required to notify the grant authority and your grant may be withdrawn.

The university has a formal set of Attendance Requirements, contained in the Absence Policy <a href="https://www.gla.ac.uk/media/media\_129312\_en.pdf">https://www.gla.ac.uk/media/media\_129312\_en.pdf</a>:

- 1. Students are expected to attend all timetabled classes (whether those are held physically, or scheduled online classes);
- 2. Attendance at any examination which contributes to summative assessment is compulsory;
- 3. Heads of Schools are responsible for ensuring that students are given clear notification of all classes for which attendance is compulsory.

The information on compulsory classes is contained in the section 'Minimum Requirement for Award of Credits' of the Course Specification for each course, which can be downloaded from the Course Catalogue <a href="https://www.gla.ac.uk/coursecatalogue/">https://www.gla.ac.uk/coursecatalogue/</a>. You will be graded CR (credit refused) or CW (credit withheld) for a course if you fail to meet these requirements without good cause. This may mean that you cannot complete your curriculum for the year and may not be able to progress to the next year of your studies.

Note that to ensure that your attendance is recorded correctly on online activities (such a Zoom calls) you should log in using your University of Glasgow GUID and GUID password as described at <a href="https://www.gla.ac.uk/schools/engineering/it/howto/zoom/">https://www.gla.ac.uk/schools/engineering/it/howto/zoom/</a>. Course Moodle sites will contain a direct link to access online sessions.

#### **Compulsory Classes**

Attendance at elements of the course designed to provide learning through experience is compulsory. This includes laboratory studio work, drawing, computing and design project classes, external visits, lectures by visiting speakers, and lectures setting out the requirements for laboratory and project work. Course specifications make clear which elements of a course are compulsory. Note that 'attendance' means 'timely attendance'. Late arrival at laboratories etc., so that you miss the instructions given at the start, will be treated as non-attendance. **Note that laboratories will be re-scheduled only in exceptional circumstances**.

#### Lectures

Different students have different learning strategies for taught courses assessed by examination. However, absence from lectures is nearly always a result of your failure to manage your time effectively and is definitely prejudicial to your chances of success in the examinations. There is a strong correlation between attendance at lectures and tutorials, and performance in exams.

Lecture courses provide additional support for students. Questions can be answered during lectures if the class size is small (use the Chat function to ask questions without disturbing the flow of online lectures). Otherwise, the lecturer can be approached outside the lecture to clarify any points, and to help you with tutorials and preparation for exams. If you are regularly absent from lectures this support will not be available — you cannot expect to receive private tuition from the lecturer to compensate for not attending lectures.

While most labs are in the Engineering Buildings, many lectures and tutorials are held elsewhere on campus and a map showing teaching room locations throughout the University is available online at <a href="https://www.gla.ac.uk/about/maps/">https://www.gla.ac.uk/about/maps/</a> or through MyCampus. The University also provides useful web apps which link to your timetable and give directions on how to get to lecture locations <a href="https://www.gla.ac.uk/apps/">https://www.gla.ac.uk/apps/</a>

If the lecture or lab is held online this is indicated on MyCampus and the course coordinator will provide you with the necessary information to access the activity on Moodle.

#### **Tutorials**

Tutorials are an important source of formative feedback on your understanding of the course material. The amount of preparation for each tutorial varies but you should expect to spend approximately four hours **before** each tutorial working on the questions. In this way you will be able to ask the support staff questions and get feedback on your attempts. It is not good enough simply to attend tutorials and to start work on the tutorial questions at the scheduled tutorial.

#### Laboratories

Attendance at laboratories is an essential and compulsory part of many courses. They help consolidate your knowledge and put it into practical context. They are also a great way to get feedback from laboratory demonstrators and lecturers on your understanding of course material. Your individual timetable is on MyCampus and you must attend at your specified times. Note that these will be different from many other students on your degree programme. If you miss a laboratory for any reason, you must speak to the lecturer concerned with the laboratory as soon as possible to try to complete the laboratory. Labs will be re-scheduled only in exceptional circumstances and failure to attend without good reason may lead to credit being refused for the course. This may affect your ability to progress to the next year of the curriculum or to complete your degree.

#### **Monitoring of Attendance**

Attendance at classes may be monitored by the lecturer involved using various methods, including paper-based attendance rolls and displayed QR codes. It is normal in levels one and two for attendance to be taken at all lectures, tutorials and laboratory sessions. If attendance is taken by QR code and you do not have an electronic device with you to log in, talk to the lecturer after the session to ensure that your attendance is recorded. It is a disciplinary offence to falsely represent someone as being present at a class when they are absent. As explained above you should log in using your University of Glasgow GUID and GUID password, via course Moodle sites to ensure that your attendance is correctly recorded.

#### Feedback

Tutorials and labs are the methods of receiving direct feedback from lecturers and support staff on your understanding of course material and problem solving during both tutorials and labs. The more preparation you put into the tutorials and labs, the more useful the feedback will be to you, even in circumstances where feedback is given to the class as a whole You should always attempt questions prior to a tutorial and if the lab is problem-based attempt the assignment task before you come to the lab.

Aside from tutorial/lab sessions, individual or group feedback can also be obtained directly from lectures, for example if you are unsure of aspects of a course. Sometimes this only requires a few minutes discussion with a lecturer at the end of a lecture, or for more detailed discussion an appointment can be made (by emailing staff directly) to meet with a lecturer to go over course material. Lecturing staff are always happy to discuss course material with students directly, but it is your responsibility to seek such feedback. Always seek assistance if problems occur, do not wait until the examination period.

You will receive academic feedback on your work in several other ways:

- Feedback is provided by lecturers and demonstrators during laboratories. You will get the full benefit only if you come prepared, and ask questions;
- Some courses require you to submit assignments, which will be marked and returned with comments as feedback;
- During projects, regular meetings with your supervisor provide a high level of immediate feedback;
- Feedback on presentations (poster or oral) can be obtained from the assessors but it is better to wait a day or two, until you are feeling more relaxed;
- Direct feedback on aspects of each course can always be obtained from academic staff, either
  after lectures or by appointment—it is always wise to bring your own written attempt at a problem,
  no matter how preliminary, so that you can receive the most useful feedback.

The University aims to return feedback on written assessments within three weeks. You will be notified if a delay is expected.

## Recognition of Excellence

Throughout the degree programmes we offer, we aim to recognise outstanding academic performance through a variety of mechanisms. At graduation, degrees are classified into First Class, Upper Second Class (also known as 2:1), Lower Second (also known as 2:2) and Third Class Honours degrees. Many employers seek to recruit from students achieving Upper Second Class or First Class degrees. Excellence is also recognised through the Engineering Excellence List and a number of Prizes.

#### **Engineering Excellence List**

As many students have not graduated by the time they are seeking employment, the James Watt School of Engineering recognises all round excellence through the Engineering Excellence List. All students who achieve a Grade Point Average (GPA) of at least 18, with no resit examinations, are selected for this list and it recognises that in the previous year of study the student achieved the level required for a First Class Honours degree.

#### **Prizes**

The James Watt School of Engineering has a number of prizes which are awarded for outstanding academic achievement. About half of the prizes are awarded to students in the early years of the degree programmes and the remainder are awarded to graduating students.

# Where to get help with your studies

The University offers a wide range of advice and guidance for your studies. These cover general issues, not those associated with a particular course, for which you should see the lecturer. Please visit the following web pages for further information.

- Student Learning Development (SLD): <u>www.gla.ac.uk/SLD</u>
- Maths Advice: https://www.gla.ac.uk/myglasgow/sld/mathsandstats/maths/
- Effective Learning Advice:
   <a href="https://www.gla.ac.uk/myglasgow/sld/writingstudyadvice/scienceengineering/">https://www.gla.ac.uk/myglasgow/sld/writingstudyadvice/scienceengineering/</a>
- University Library: <a href="https://www.gla.ac.uk/myglasgow/library/">https://www.gla.ac.uk/myglasgow/library/</a>

- English for Academic Study: <a href="https://www.gla.ac.uk/schools/mlc/eas/">https://www.gla.ac.uk/schools/mlc/eas/</a>
- Disability Service: www.gla.ac.uk/services/disability/
- Counselling and Psychological Service <a href="https://www.gla.ac.uk/myglasgow/counselling/">https://www.gla.ac.uk/myglasgow/counselling/</a>

The Students' Representative Council also runs an informative web site and their advice pages, which go far beyond academic issues, are at <a href="https://www.glasgowstudent.net/advice/">https://www.glasgowstudent.net/advice/</a>.

## Student Services Enquiry Team

The University has a wide range of student services to help you with non academic issues such as accommodation, money and legal issues etc. They are based in the Fraser Building (opposite the Library) and there is a helpdesk there where you can go for advice. You can also get advice from the website below.

https://www.gla.ac.uk/myglasgow/students/sset/

You can also download your transcript from this website, and obtain certifying letters. A full list of services is given here:

https://www.gla.ac.uk/myglasgow/students/azsearch/

There are also a dedicated team providing support for international students:

https://www.gla.ac.uk/international/support/

In particular, this team provides advice on matters relating to visas.

### **Emergency and Crisis Support**

The University can provide support for any emergency or crisis situation you might encounter (if you've been victim of a crime or hospitalised, for example). You can call **0141 330 4444** 24hrs/day, 7days/week. If you are concerned about the wellbeing of any of your classmates or friends please report this to the School, or report to the phone number above.

https://www.gla.ac.uk/myglasgow/staff/emergencyandcrisissupport/

#### Where to find further information

This handbook has been kept short so that it contains only the most important information. Here are some pointers to further information that you might need during your studies.

- Information on the structure of your degree (including a list of required and optional courses) is embedded in MyCampus and a brief description is given on the home page for each degree <www.gla.ac.uk/schools/engineering/undergraduates/>. The formal document is called the programme specification and can be found on the Senate Office web site <a href="https://www.gla.ac.uk/myglasgow/apg/gea/progdesignapproval/programmespecifications/">https://www.gla.ac.uk/myglasgow/apg/gea/progdesignapproval/programmespecifications/</a>.
- Details of individual courses (including the course contents and how the course will be examined) are contained in the *course specification*, which can be downloaded from the Course Catalogue <<u>www.gla.ac.uk/coursecatalogue/</u>>.Search on course code or name, then click "view Specification document" for detail.
- Contact information for staff can be found on the home page for Engineering
   <a href="www.gla.ac.uk/schools/engineering/">www.gla.ac.uk/schools/engineering/</a>> or use the Staff A–Z search from the University's home page <a href="www.gla.ac.uk/stafflist/">www.gla.ac.uk/stafflist/</a>>.
- Past examination papers These are found via a link on your MyGlasgow account.

Course, programme and School Moodle sites also contain useful information.

## Your Opinion is Important

All courses are subject to continual review and assessment to ensure that the course objectives are being realised, and that student needs are being met. From time to time during the year you will be asked to fill in Student Evaluation Questionnaires for your various courses. Please treat this as a serious exercise. The results are important and are used to continually improve and update our courses. You should be aware that feedback with insulting or inappropriate comments are not considered in the outcome of the feedback—constructive criticism is far more likely to produce results.

You will be invited to participate in surveys run by both the University and external organisations. In first year you will be asked to take part in the First Year Student Experience survey and in your final year you will be asked to complete the National Student Survey (NSS). The James Watt School of Engineering takes both surveys very seriously and we hope that you will complete them promptly when asked.

#### Staff Student Liaison Committee

All disciplines within the School have a Staff Student Liaison Committee (SSLC) which meets once each semester, about week six, to discuss matters relating to courses and the welfare of the student body (NOT individual cases, which should be referred to the appropriate Adviser of Studies).

The student representation on the committee consists of one student from each year of each degree programme where the degree programme has a distinct curriculum. Each representative is offered training before undertaking this duty, which can then be recorded on a student's transcript. Training is provided both by the University and (for PDE students) the SRC at Glasgow School of Art. Details can be obtained from the School Teaching Office.

Guidelines on the operation of Staff Student Liaison Committees within the University are available online at <a href="https://www.gla.ac.uk/media/media">www.gla.ac.uk/media/media</a> 129536 en.pdf>

Details of who is your class rep can be found here https://frontdoor.spa.gla.ac.uk/StudentVoice/classRepsHome.aspx

#### Get Involved

There are numerous extra-curricular degree related organisations that you may wish to get involved in: <a href="https://www.gla.ac.uk/schools/engineering/undergraduate/studentsocieties/">https://www.gla.ac.uk/schools/engineering/undergraduate/studentsocieties/</a>
<a href="https://www.glasgowstudent.net/clubs/find-a-club/">https://www.glasgowstudent.net/clubs/find-a-club/</a>

Clubs and societies include: Glasgow University Civil Engineers (GUCE); FemEng – the female engineering society; Formula Student Team, also known as University of Glasgow Racing (UGR); GU Orbit; GU Rocketry; Handprints, and many others.

In addition, there are local Young Members sections of the main Engineering Institutions (e.g., ICE, IET, IMechE, IStructE, RAeS) which host regular events in Glasgow where opportunities exist to meet with recently graduated engineers now working in industry.

# **Practical Information**

#### **Session Dates**

Session dates are published at <a href="https://www.gla.ac.uk/myglasgow/apg/sessiondates/">https://www.gla.ac.uk/myglasgow/apg/sessiondates/</a>. You should note that you are expected to be in attendance at the University at all times during each Semester. It is not acceptable to arrange holidays or other periods of time away from Glasgow during the Semester. In particular, you should note that exams may take place on weekday evenings and Saturdays during the exam periods.

Resit Examinations take place in during the first three weeks of August. If you have any resits, or are unsure whether you will have resits, you should avoid booking holidays or making other commitments during these three weeks as resits cannot be re-arranged and failure to sit these exams may result in not being able to progress to the following year of study.

#### **Exam Timetable and Deadlines**

Registry publish the exam timetables and the deadline for your school to publish results (please note that timetable are not finalised until approximately 1 month before the exam diet starts): <a href="https://www.gla.ac.uk/myglasgow/registry/exams/">www.gla.ac.uk/myglasgow/registry/exams/</a>

## Computers

An important part of your development as an engineer is to learn to use computers as an integral part of your day to day activities. For this reason you have free access to a large number of desktop computers in open access clusters sited around campus (mostly in the library and reading room, but a full list of computer clusters can be found at <a href="https://www.gla.ac.uk/myglasgow/it/studentclusters/">https://www.gla.ac.uk/myglasgow/it/studentclusters/</a>. All are installed with a standard office application suite for creating documents, spreadsheets and presentations. Presentation and writing important parts of an engineer's activity and you will practise this by submitting written work right from the beginning of your degree.

If you feel you need further training in standard office software, you can undertake the appropriate IT Services training course. These are available in both taught (face-to-face) and in online versions. To determine the appropriate level of course that you need to get you to the baseline, help is available at <a href="www.gla.ac.uk/services/it/forstudents/ittraining/">www.gla.ac.uk/services/it/forstudents/ittraining/</a>, telephone +44 (0)141 330 8474 or visit the Student IT Helpdesk in level 3 of the University Library.

Though standard office software is also installed on the computers in the School of Engineering clusters these machines are primarily provided for running specialist applications for engineering analysis and computer aided design which are not available elsewhere on campus. To that end, priority will be given to those wishing to use packages that are provided only within the School's computing clusters. Demand for the computers is heavy, so you will need to work out the best time for you to use them. Screens are provided at the entrances to the Rankine and James Watt South buildings giving real time information on timetabled classes. The local Engineering IT Support team have information on labs and software < <a href="http://www.gla.ac.uk/schools/engineering/it/">http://www.gla.ac.uk/schools/engineering/it/</a>

Wireless network access is also available in much of the Campus and you can access this from your phone, notepad or laptop using your standard student login. Many Engineering IT clusters have additional space set aside for students who wish to work on their own devices, often with USB power points. Further information is available via the University IT Services for students webpage at <a href="https://www.gla.ac.uk/services/it/forstudents/">www.gla.ac.uk/services/it/forstudents/</a>>.

A number of printers are provided to enable you to produce printed output. These operate on a prepaid credit system and credits for this may be purchased online via <a href="https://www.gla.ac.uk/myglasgow/it/printing/">https://www.gla.ac.uk/myglasgow/it/printing/</a> or in the Library.

#### **Email**

Many communications from courses and information concerning, for example, urgent changes to the timetable, will be sent by email. It will be sent to your University of Glasgow student email account. You should therefore ensure that you check your email messages regularly. You must also ensure that all emails you send to members of staff are from your university email account, rather than private email accounts. On some occasions a text message may be sent regarding class changes, so please ensure that your mobile number is kept up-to-date on MyCampus. Please ensure you read thoroughly any communications your receive from the School as it will contain critical information.

#### Moodle

The University's online virtual learning environment is called Moodle. You log into this from MyGlasgow <a href="www.gla.ac.uk/students/myglasgow/">www.gla.ac.uk/students/myglasgow/</a> or directly at <a href="https://moodle.gla.ac.uk/login/index.php">https://moodle.gla.ac.uk/login/index.php</a>. Each course that you are enrolled on has a Moodle page and you will be automatically enrolled on the Moodle course once you have registered for the course within MyCampus. Your username and password are the same as you use to access MyCampus, log in to computers on campus, and access your University email.

You should familiarise yourself as soon as possible with Moodle as important information will be posted there such as tutorial sheets, course notes, zoom links, links to additional resources, and requirements for coursework. In addition to course Moodle sites, there are a number of other Moodle sites which are organised on a Discipline or Degree Programme basis.

The Teaching Office has a Moodle page <a href="https://moodle.gla.ac.uk/course/view.php?id=23606">https://moodle.gla.ac.uk/course/view.php?id=23606</a>
This will be the portal for a lot of important information pertaining to your studies, exams etc. Please check it on a regular basis.

# **MyCampus**

MyCampus is the University of Glasgow's student information and management system that is used by students throughout the year. It:

- shows the courses that make up your curriculum and permit you to select any options;
- allows you to make up your own timetable for classes where a choice is available (typically laboratories or tutorials) and show your overall timetable for classes;
- compares your results with the progress regulations so that you can see whether you need to take resits;
- provides the system for reporting when your studies are affected by illness or personal difficulties.

Please ensure you keep your contact details and those of your emergency contacts up to date throughout the year.

You should have received the information required to log in to MyCampus by email and can find more information at <a href="https://www.gla.ac.uk/students/myglasgow/">www.gla.ac.uk/students/myglasgow/</a>>.

#### Staff

The School of Engineering has over 100 academic staff members and a similar number of administrative, technical and support staff. A full list of staff in the School is available on the University website at <a href="https://www.gla.ac.uk/schools/engineering/staff/">www.gla.ac.uk/schools/engineering/staff/</a>>.

## Student Support Officer

Lewis Gibb is part of a team of four Student Support Officers (SSO) across the College of Science and Engineering. The SSO is a first point of contact for a whole range of enquiries to guide you through the support offered by the University. This may include financial concerns, personal problems, accessing the counselling service or disability support, preliminary help with careers – or any instances outside academic work when you are not sure where to find help.

Many of these issues intersect with the role of Academic Advisers, but with one key difference: the SSOs are dedicated solely to this kind of support. They have the time to talk through any problems in detail to get a full picture of the support that will benefit you.

When on campus, Lewis is based in the Teaching Office (James Watt South building, Level 6, room JWS620). He is available for confidential one-to-one discussions throughout the working week, whether in person or online.

Meetings can be booked through the Teaching Office appointment system: <a href="mailto:frontdoor.spa.gla.ac.uk/AppointmentBookingService/FrontPage.aspx">frontdoor.spa.gla.ac.uk/AppointmentBookingService/FrontPage.aspx</a>. Alternatively, you can email him at <a href="mailto:studentsupport@glasgow.ac.uk">eng-studentsupport@glasgow.ac.uk</a>, or send a message via MS Teams.

# **Academic Support**

#### **Advisers of Studies**

Each student is allocated an *Adviser of Studies* who provides advice throughout the year to students who experience any kind of difficulties which might impinge on their studies. It is thus essential that students should keep their Adviser of Studies fully informed of all academic problems as well as personal or medical problems (including those of near relatives) which might possibly affect academic progress. Your Adviser will treat anything you tell them in complete confidence, and if necessary may refer you to the Student Support Officer or one of the many student advice and counselling services available in the University.

You can find out who your Adviser of Studies is by looking on <a href="https://www.gla.ac.uk/media/Media 792272 smxx.pdf">https://www.gla.ac.uk/media/Media 792272 smxx.pdf</a>. Your Adviser will make contact with you early in the academic year to arrange a face to face meeting. If you wish to see your Adviser at any other point in the year, you should make an appointment either directly with your adviser (by e-mail) or through the Student Support Officer (SSO) by emailing <a href="mailto:Eng-teachingoffice@glasgow.ac.uk">Eng-teachingoffice@glasgow.ac.uk</a> Please give the SSO an indication of the reason you wish to see your adviser, as it is possible that the SSO may be able to help you directly. If your Adviser of Studies is not available, you may be directed to the Senior Adviser for your subject area or the School's Chief Adviser (see contact details below). It is also possible that your Adviser (or other officers from the School or University) may need to contact you. Please keep your contact details on MyCampus up to date and check your e-mail regularly.

If you are unable to contact your Adviser of Studies then please contact one of the Senior Advisers or the Chief Adviser.

#### **Main Advisers of Studies**

Chief Adviser

Senior Adviser Aeronautical Engineering

Senior Advisor Biomedical Engineering

Senior Advisor Civil Engineering

Senior Adviser Electronics and Electrical Engineering

Senior Adviser Mechanical Engineering/PDE

Dr Douglas Thomson

(Douglas.Thomson@glasgow.ac.uk)

Dr Richard Green

(Richard.Green@glasgow.ac.uk)

Dr Manlio Tassieri

(Manlio.Tassieri @glasgow.ac.uk)

Linda Brown

(Linda.Brown@glasgow.ac.uk)

**Prof Vihar Georgiev** 

(Vihar.Georgiev@glasgow.ac.uk)

Dr Paul Prentice

(Paul.Prentice@glasgow.ac.uk)

#### Illness or Personal Problems

The University has a student Absence Policy <a href="https://www.gla.ac.uk/media/Media">https://www.gla.ac.uk/media/Media</a> <a href="https://www.gla.ac.uk/myglasgow/apg/policies/assessment/goodcausefaqs/">https://www.gla.ac.uk/myglasgow/apg/policies/assessment/goodcausefaqs/</a>

These explain what you should do if your studies or examinations are affected by illness or personal problems. The main point is that students must complete an absence or good cause report as soon as possible on MyCampus for any 'significant' absence or issue that has affected your studies. A 'significant' absence/issue is:

- 1. an absence of more than seven consecutive days during working periods;
- 2. an absence of *any* duration if it prevents a student from:
  - a) attending an examination; or

b) fulfilling any other published minimum requirements for the award of credit (e.g., compulsory attendance at a tutorial or laboratory class or meeting a deadline for handing in an assignment).

To determine whether you should report your issue through Good cause or Absence please follow the link above to view the Good Cause FAQ's.

You must justify the reason for your absence and may be required to upload supporting evidence. You may also wish to explain the circumstances to your Adviser, particularly where the illness or difficulties may be prolonged. The sooner you tell us, the earlier we can help you.

You are expected to make up for missed classes where practicable. For example, if you miss a compulsory laboratory near the start of a course you can usually arrange with the lecturer to complete it at a later date. It is your responsibility to make such arrangements.

The university has a general rule that you must complete 75% of a course to be awarded credit. This means that it is not possible for you to be awarded credit after a prolonged absence, even for a good cause. This is because you would not have met enough of the learning outcomes of the course. Discuss your circumstances with your Adviser if there is any possibility of this happening to you; it may be best to withdraw from your studies until your problems are fully resolved.

#### **Good Cause Reports**

If you are unwell or have encountered adverse personal circumstances which prevent you from attending an exam or other assessment, or you feel that your performance in an exam or assessment has been affected, then you can submit a good cause report through MyCampus. Please use the link to the FAQ above for full details. If your report is approved then you will be given another opportunity to take the exam/assessment without your grade being capped. Note that having a good cause report approved does not mean you are excused from resitting the exam, further, we do not change grades to compensate – you are simply given a second uncapped opportunity. You must submit your report within 7 days of the affected assessment and your case will be strengthened if you can provide supporting evidence (again, see the FAQ for further details). Any information you provide will be treated in confidence.

#### **Academic Advice**

An obvious question is: "where can I get advice and seek further information?"

- If the issue is an administrative matter—a clash in the timetable, for instance—you should contact the **School Teaching Office**. Please allow 48 hours for a response.
- If the issue is personal rather than academic, contact the Student Support Officer.
- If it is a general academic issue please contact your Adviser of Study. The arrangements for making an appointment are described above.
- If you have an academic problem with a particular course, speak to its **Lecturer** or **Coordinator** in the first instance.
- If the lecturer or coordinator cannot resolve the problem, or if it concerns the degree programme or Discipline rather than a single course, speak to the **Head of Discipline** (contact e-mail addresses on p2 above).
- If you believe that the issue is affecting many students then speak with your class representative who will raise it at the Staff Student Liaison Committee if it is a widespread problem. You can see who your student rep is here:
  - https://frontdoor.spa.gla.ac.uk/StudentVoice/classRepsHome.aspx
- If none of the above approaches are able to resolve a problem then the remaining options are to see the Convener of Learning and Teaching or to request an appointment with the Head of School.

# **Structure and Assessment of Degree Programmes**

## Terminology — Programmes, Courses and Credits

Common words such as 'course' can be used in different ways so here is a brief list of usage at Glasgow University.

- A **degree programme** is the complete curriculum that leads to a degree, such as BEng in Aerospace Engineering or MEng in Mechanical Engineering.
- Each programme is divided into **courses**, each of which is self-contained with its own instruction and assessment.
- Each course has a **level**, which is roughly the same as its year in the curriculum and is often shown by a number at the end of the name of the course. For example, Aerospace Engineering 1 is a level 1 course and appears in the first year of the curriculum for undergraduates. Masters level courses may have an 'M' instead of a number.
- The size of courses is measured in **credits**. Most taught courses carry 10 or 20 credits, but projects may be larger.
- You are **awarded the credits** for a course if you complete all the compulsory work and assessments; typically this means that you must attend laboratories and tutorials, submit assignments and attend examinations (the details are given in the specification for each course and will be explained by the lecturer or convener).
- The usual academic year for undergraduates (September–June) carries 120 credits.

Formally 1 credit = 10 learning hours, the total time that a typical student is expected to spend on a course. Thus a 10 credit course demands 100 learning hours. In many cases the timetabled classes (lectures, laboratories, tutorials) come to about 30 hours so you are expected to spend more than double that time working on the material in your own time — reviewing lecture notes, going over difficult points with the aid of a textbook, working through tutorial sheets, writing laboratory reports and revising.

A number of qualifications are available from the University of Glasgow, depending upon the level achieved and the number of credits studied. Table 1 indicates the minimum number of credits required for each qualification and the number of years typically required to achieve this qualification. It also details the Scottish Credit and Qualifications Framework (SCQF) level.

Qualification	Abbreviation	Total credits required	Years of Study	SCQF Level
Certificate of Higher Education	CertHE	120	1	7
Diploma of Higher Education	DipHE	240	2	8
Bachelor of Science in	BSc (Ord)	360	3	9
Engineering (Ordinary)				
Bachelor of Engineering	BEng	480	4	10
Master of Engineering	MEng	600	5	11

**Table 1: Undergraduate Qualifications** 

## Guide to the Grading Scheme

You are awarded a grade at the end of each course, following a meeting of the School Board of Examiners to approve the results. These results are published only on MyCampus; please do *not* ask the Teaching Office, Advisers of Studies, lecturers or anybody else because they will not be able to tell you your results.

Assessment is governed by the University's *Code of Assessment*, which is part of the University Regulations <a href="https://www.gla.ac.uk/myglasgow/apg/policies/assessment/codeofassessment/">https://www.gla.ac.uk/myglasgow/apg/policies/assessment/codeofassessment/</a>. This specifies a set of grades from A1 (highest) to H (lowest) with descriptions of each grade shown in Table 2. Some courses, notably projects, are assessed using these grades directly but most examinations in Engineering are marked in percentages. The School converts these to grades using the mappings in Tables 2(a).

		Grade Points	%	Gloss	Primary verbal descriptors for attainment of Intended Learning Outcomes
A	1 2 3 4 5	22 21 20 19 18	90–100 80–89 77–79 74–76 70–73	Excellent	Exemplary range and depth of attainment of intended learning outcomes, secured by discriminating command of a comprehensive range of relevant materials and analyses, and by deployment of considered judgement relating to key issues, concepts and procedures
В	1 2 3	17 16 15	67–69 64–66 60–63	Very Good  Very Good	
С	1 2 3	14 13 12	57–59 54–56 50–53	Good	Clear attainment of most of the intended learning outcomes, some more securely grasped than others, resting on a circumscribed range of evidence and displaying a variable depth of understanding
D	1 2 3	11 10 9	47–49 44–46 40–43	Satisfactory	Acceptable attainment of intended learning outcomes, displaying a qualified familiarity with a minimally sufficient range of relevant materials, and a grasp of the analytical issues and concepts which is generally reasonable, albeit insecure
		Fail	grades (E1	and below) shou	lld be resat at the earliest opportunity.
E	1 2 3	8 7 6	37–39 34–36 30–33	Weak	Attainment deficient in respect of specific intended learning outcomes, with mixed evidence as to the depth of knowledge and weak deployment of arguments or deficient manipulations
F	1 2 3	5 4 3	27–29 24–26 20–23	Poor	Attainment of intended learning outcomes appreciably deficient in critical respects, lacking secure basis in relevant factual and analytical dimensions
G	1 2	2	15–19 10–14	Very Poor	Attainment of intended learning outcomes markedly deficient in respect of nearly all intended learning outcomes, with irrelevant use of materials and incomplete and flawed explanation
н		0	0–9	No credit	No convincing evidence of attainment of intended learning outcomes, such treatment of the subject as is in evidence being directionless and fragmentary

Table 2(a): Mapping of percentage marks to grades and verbal descriptors of grades from Code of Assessment

In order to be awarded the credits and to gain one of the grades in Table 2, you must have completed a course satisfactorily. If you have not been awarded the credits for a variety of reasons other results are used. For example:

- MV Approved Absence. This means that you had medical or personal circumstances which
  prevented you from taking the exam at first sitting and you can take the resit without penalty. For
  continuing students resits are compulsory;
- CW Credit Withheld. This means that you have not completed some part of the assessment (exam, laboratory report etc.) but can still do so before the next academic year in order to augment any resit grade. Contact the course coordinator to confirm what assessment needs to be returned and to find out the deadline that they have set. Under no circumstances will this deadline be after the start of the resit examination period, the first week of August. This is so your continuous assessment can be marked before the final resit exam board. Failure to remove a CW will result in non-progression/inability to graduate.
- **CR** Credit Refused. This means that you have not completed some compulsory element of the course (attended laboratories etc.) and it is **not** possible to remedy this in the current academic year. You cannot change CR by taking a resit exam; you would need to repeat the course and the progress committee may not permit this. Contact the lecturer if you are in doubt as to why you were refused credit for a course.

- **07** Deferred Result. This means we have not been able to give you a grade at the usual time. The reasons range from study abroad to conduct so please ask if this is unexpected.
- **CA** Credit Awarded. This means that it has not been possible to award a grade for the course but you are credited with having completed the course.

Each grade also has a number of **Grade Points** (0–22) associated with it. These are used to calculate your average performance, which is needed to check your progress and for graduation.

#### Threshold grades for accredited degree

In order to obtain a threshold grade (D3) in any engineering course which includes coursework and an examination, there is a threshold requirement for each type of assessment that contributes more than 30% of the final assessment weighting.

An overall course result will be capped at E1 (i.e., below the threshold grade) if either:

- the final exam grade is below E3 AND the final examination contributes more than 30% of the final assessment weighting; or
- the coursework assessment combined grade is below E3 AND the combined coursework assessments contribute more than 30% of the final assessment weighting.

This is a requirement for accreditation.

## Rules for Progression and Graduation

Your results at the end of each academic year must meet certain requirements for you to progress through your degree programme. There are similar requirements for graduation. The minimum requirements are set out formally in the University Regulations <a href="https://www.gla.ac.uk/myglasgow/apg/policies/uniregs/">https://www.gla.ac.uk/myglasgow/apg/policies/uniregs/</a>. In addition, there are requirements placed upon students by the Engineering Council, which must be fulfilled to obtain an accredited degree. These requirements are laid out below. **NOTE:** these requirements are more stringent from the 2021–22 session onwards than in previously.

#### **Progression**

Note that these progression rules are effective on all students from the 2021–22 session.

Our expectation is that you should obtain a minimum of a D3 in every module you take, however you can still progress to the following year provided you meet the following minimum requirements. For most degrees your results in each academic year must satisfy these conditions for progression to the next year in BEng:

- minimum grade of E3 in every course;
- no more than 10 credits at E grade;
- average GPA of at least 9.0.

Note that the first of these requirements means that if you get any grades below E3 then you cannot qualify for an accredited degree (BEng or MEng). You can still qualify for a BSc degree however.

The same rules apply for progression in MEng but your GPA must be at least 14.0; this rule is advisory at the end of years 1 and 2 but will be enforced thereafter. This means that entry to MEng is effectively determined at the end of year 3 – your GPA for year 3 must be at least 14.0 to remain on the MEng degree. Note that those students on the BEng degree who achieve a GPA of greater than 14.0 for year 3 will be offered the opportunity to transfer to the MEng if they wish, and if they fulfil all the other requirements of an accredited degree. Students on the MEng degree who do not meet the progress requirements at the end of year 4 will be transferred to the BEng degree, and it is likely that such students will be required to complete an individual project to qualify for the BEng over the summer.

You may resit courses in years 1–3 to meet the progression rules. The grade points are capped at 9, corresponding to D3, however MyCampus (and your transcript) will show the best grade for the course. Note that this also means that if you get a poorer grade in a resit exam then the better, original grade, will be displayed. Only your results from the first attempt in year 3 will be carried forward to your honours degree classification and it should be noted that if you have a CW recorded in third year at the first attempt then this course will contribute no grade points to your overall degree classification.

Exceptionally, you may, at the discretion of the Exam Board, be allowed to resit 4th year subjects. This will only be permitted to improve a grade (to D3 or better) for the purposes of qualifying for an accredited degree. The original grade you got will be used in your degree classification calculation (i.e., no matter how good, your resit grade is, it will not improve your classification).

The School Progress Committee meets in June and September each year to consider the progress of all students. They consider your results with any evidence of personal difficulties and decide whether you:

- can make normal progress to the next year of study;
- may transfer to another qualification (e.g., MEng to BEng);
- are offered the opportunity to repeat some courses in order to improve your results: there is no automatic right to any further reassessment beyond the first resit;

 should be excluded from further study, in which case you will be considered for the awards of BSc Ordinary (Engineering Studies), Diploma of Higher Education (Engineering Studies) or Certificate of Higher Education (Engineering Studies).

Note that students cannot simply elect to retake an entire year if they have done particularly badly in exams. The opportunity to retake a year is only granted if the student has encountered extended illness or other adverse circumstances which have significantly impaired their ability to study throughout the year.

The progress committee makes decisions with the best interests of the student in mind. Sometimes this may mean the student repeating a year or taking an exams only year to maximise their likelihood of successfully completing their degree. Occasionally, however, it's clear that a student is finding it very difficult to meet the progress requirements and continued study on a programme really is not in their best interests, and their studies will be discontinued. In these circumstances advice on other study options is available.

You have the right of formal appeal to the College against the decisions of the Progress Committee. The Code of Procedure for Appeals is laid out in the University Regulations: <a href="https://www.gla.ac.uk/myglasgow/apg/studentcodes/">https://www.gla.ac.uk/myglasgow/apg/studentcodes/</a>

#### Graduation (for students who first registered before the 2021–22 session)

The University has general requirements for graduation, and BEng or MEng have extra rules that are similar to those for progression:

- minimum grade of E3 in every course in the final year;
- minimum grade of D3 in the best 100 credits in the final year;
- minimum grade of D3 in your major individual project at the first attempt.

These rules were set by the Engineering Council for accredited degrees. You will be considered for the degree of BSc (Honours) in Engineering, which is not accredited, if you only meet the university's standard requirements. Note that you require a minimum grade of D3 in your major individual project for *any* honours degree.

# Graduation (for students who first registered in or after the 2021–22 session)

The University has general requirements for graduation, and BEng or MEng have extra rules that are similar to those for progression, again, augmented by requirements from the Engineering Council:

- minimum grade of E3 in every course in the final year;
- obtain a maximum of 30 credits at E in all courses taken from year 2 onwards.

You will be considered for the degree of BSc (Honours) in Engineering, which is not accredited, if you only meet the university's standard requirements. Note that you require a minimum grade of D3 in your major individual project for *any* honours degree.

## Classification of Honours Degrees

At the James Watt School of Engineering Degree Classification Board the results for each student are presented and a classification is awarded.

The information presented to the exam board includes the Grade Point Average (GPA) for each of the years contributing to Honours Classification (Years 3, 4 and 5 for MEng and years 3 and 4 for BEng). Based on these figures, a weighted overall GPA (rounded to 1 decimal point) is calculated for each student using the ratios detailed below.

Your honours degree classification is calculated from a weighted average of your results from year 3 onward:

- for BEng degrees the weighting is 30:70 from years 3 and 4 except for Electronic and Software Engineering, for which the weighting is 35:65;
- for all MEng degrees the weighting is 20:40:40 from years 3, 4 and 5. Table 3 gives the bands for classifications based upon the weighted GPA as detailed above.

The classification is then calculated based upon Table 3. Where a student falls into the "either" bands, the University Code of Assessment requires us to calculate a Grade Profile (weighted proportion of credits above the band being considered). If the Grade Profile is 50% or more, a student is promoted to the higher degree classification.

Honours Weighted GPA	Honours Degree Classification
17.5–22.0	First class
17.1–17.4	either First or Upper Second class
14.5–17.0	upper second class
14.1–14.4	either Upper Second class or Lower Second class
11.5–14.0	Lower second class
11.1–11.4	either Lower Second or Third class
8.5–11.0	Third class
8.1–8.4	either Third class or fail
0.0–8.0	fail

Table 3: Mapping of Weighted GPA to Honours Degree Classification

In exercising discretion the Exam Board is guided by the criteria set out in Section 2.7 of the Code of Assessment www.gla.ac.uk/services/senateoffice/policies/assessment/codeofassessment/guide/

## Access to Exam Scripts

Typically, staff will post general feedback on student performance in final degree examination questions on the course Moodle site after the exam and marking period. This feedback is most useful for students who may need to take resits, and for students who have downloaded past papers from the University Library and wish to know how previous students performed in those examination questions.

In addition, some students may wish to see their own marked script, and the School organises exam script viewing. The purpose of this viewing is to give you an opportunity to see where you went wrong in the exam, as a form of feedback—although of course you will only see how you answered each question and the mark given.

Exams scripts for exams that are being taken online via Moodle will be shared with you via Moodle or another online platform. Exams scripts for exams that have been taken on campus will be available to view in the Teaching Office at specific times. This will happen following the publication of results and the Teaching Office will notify you when scripts are available.

Note that exam script viewing is not an opportunity to lobby for extra marks; you cannot question the academic judgement of the marker. Your exam script is always checked by at least two markers, and so it is very rare for arithmetic faults in the marking to be found, but if you find that component marks on your exam script have not been added correctly or if a part of your script does not seem to have been marked then please speak to the Teaching Office staff present who will investigate for you.

# **Academic Conduct**

#### Conduct in examinations

The following information relates to in person exams. Further details regarding online exams will be sent to students in advance of the exam diet.

Examinations are the major assessment for most courses and it is essential that they take place under fair conditions for all students. The University has therefore drawn up rules to prevent cheating and will take severe action against any student who breaks these rules. The full regulations on exam conduct are set out in the University of Glasgow Regulations and the following key points have been summarised by the Registry examinations team:

- 1. You are under examination conditions at all times in the examination and from the moment you enter the examination room.
  - You must follow the instructions given to you by invigilators.
  - You must not talk to or use any other form of communication with anyone other than an invigilator during the examinations and may not communicate until you have left the examination room at the end of the examination.
  - You must not begin writing before the invigilator announces the start of the examination and must cease writing when the invigilator announces the end of the examination.
- 2. You must have your University of Glasgow Student ID Card with you in the examination. It must be on your desk and in clear view at all times. No other form of ID will be accepted by the invigilators. If you forget to bring your ID Card, this will be recorded on your Attendance Form and you will be reported to your Head of School after the examination.
- 3. The use of mobile phones and other electronic devices, such as personal music players is not permitted during examinations. You must switch off and remove all such items, including headphones, prior to the start of the examination and place them in a closed bag or container away from your person. The owners of mobile phones that ring during the examination will be reported.
- 4. The use of unauthorised materials, such as revision notes and books, is not permitted during examinations unless your School have specifically stated that they are permissible in the rubric (rules) for the particular examination being undertaken. If you have any prohibited materials on your person prior to the examination, please remove them and place them in a closed bag or container away from your person once you enter the examination room. Invigilators will make random checks on materials being used in the examination and will confiscate prohibited materials. Candidates found in possession of prohibited materials will be reported to the Clerk of Senate.
- 5. No part of any answer book shall be torn out or removed from the examination room.
- 6. You must leave outdoor coats and any bags containing personal possessions in the designated area of the examination room. Invigilators and Janitorial Staff will direct you on where to leave these items. Small, valuable personal items, such as purses or mobile phones, may be kept in a closed bag or container under your seat.
- 7. In the event of a fire alarm, you must leave all examination materials and personal belongings and proceed quickly but quietly to the nearest designated Fire Exit. You will be instructed at the start of the examination on what to do in the event of a fire alarm. Please make sure you listen to and follow the instructions given to you by the invigilators.
- 8. Invigilators will report any breaches of the rules or the Instructions to Candidates on their Conduct in Written Examinations that occur during examinations. If you are at all unsure of the rules or Instructions or any part of your commitment to them, please either speak to your School before the examination or speak to an invigilator in the examination room.

The penalties for misconduct in examinations are severe and may result in expulsion from the University. Section 17 of the Fees and General Information in the University Regulations concern student conduct in

written examinations, and you should pay particular attention to points 3, 4, 5, and 6 <a href="https://www.gla.ac.uk/myglasgow/apg/studentcodes/conduct/studentcoductstudents/">https://www.gla.ac.uk/myglasgow/apg/studentcodes/conduct/studentcoductstudents/</a>

Where an invigilator reports to the Senate that a student has been found with prohibited material, the student concerned is interviewed by the Senate Assessors for Student Conduct (under the provisions of the University's Code of Student Conduct). The Senate Assessors can impose a range of penalties and these can have very severe consequences for the student involved — for example, a common penalty is to award Grade H for the examination in question, with no opportunity to resit. In some cases, this can have the effect of preventing students from completing their degree, or from graduating).

In order to avoid consequences such as this, you are asked to be particularly aware of the items in your possession as you enter the examination room. Please ensure you have no revision notes in pockets or inside permitted material such as dictionaries or pencil cases - these can sometimes be forgotten.

In particular, many conduct cases involve students who are found with mobile phones during exams. Please ensure that your mobile phone is switched off, and in your bag, which should be left in the location advised by the invigilator (usually at the front of the hall). If you are found with a mobile phone at your desk during an examination this will be considered as an offence equivalent to cheating, and the penalties applied can be severe.

# Use of Dictionaries and Calculators in Examinations On Campus

Calculators may be used in some exams; this will be on the rubric of the exam paper. Where calculators are allowed in exams we do not have a list of approved calculators, you may take your own provided that it does not have a facility for either textual storage or display, or for graphical display. Please be aware that calculator covers are prohibited items.

#### Use of Dictionaries in Exams

The Teaching Office do not check dictionaries therefore you must ensure you complete the 'Using Dictionaries in Examinations' Form and take this to your exams. Full guidance for students who wish to use a translation dictionary in exams can be found here;

https://www.gla.ac.uk/myglasgow/apg/studentcodes/conduct/studentconductstaff/useofdictionaries/.

## Use of Script Books or 'Teleforms' in Examinations

For exams at the University, either printed script books or A3 question/answer sheets (sometimes called 'Teleforms') are provided for you, in which to write your answers. For the printed script books, in addition to places to write your name, student number, the course name, date, time and your desk number, there are a number of instructions written on the front of the script book that you are required to follow:

- (a) Write in ink what is to be read by examiners;
- (b) All writing must me on the right hand page;
- (c) Leave the margin clear:
- (d) Rough work must be clearly crossed out;
- (e) No other script, unless supplied by the Invigilators, is to be used during the examination;
- (f) No part of this book is to be torn off or removed from the Examination Hall. It must be handed back to the Invigilator whole and entire.

At the examination it is important that you fill in the front of the script book correctly:

- (a) You must enter the question numbers you have attempted in the left hand column of the grid;
- (b) Check you have entered your matriculation number on every supplementary book or sheet; (c) Enter the number of books/sheets submitted in the box at the bottom of the grid.

If you are in any doubt about how to use the script books, please ask an Invigilator.

For A3 'Teleforms' you receive a separate A3 sheet for each exam question. Details of exam date and time are already filled in, along with compulsory questions. You will be required to:

- (a), write in your student number, date of birth and answer the questions asked. It is particularly important that you write your student number and date of birth neatly and legibly as the scanning software will not be able to pick up writing that is unclear. Please note you should write your student number on both sides of the Teleform.
- (b) Make sure that you only answer the question asked on each sheet and use black ink. Do not answer other questions on the same sheet.
- c) If you need more paper than that provided, you can request a continuation Teleform sheet from the Invigilators, which will require both your student number, date of birth and question number to be clearly added. Continuation sheets are usually pink. When answering multiple choice questions, you will be provided with blue paper for working on this will not be collected or marked.

#### Penalties for late submission of coursework

Please ensure you are familiar with section 16.25 to 16.28 of the University Fees and General Information for Students section of the University Regulations which set out the full regulations <a href="https://www.gla.ac.uk/myglasgow/apg/policies/uniregs/#currentedition">https://www.gla.ac.uk/myglasgow/apg/policies/uniregs/#currentedition</a>. A key point to note is that:

Except as modified by §16.27 - §16.28, the primary grade and secondary band awarded for coursework which is submitted after the published deadline will be calculated as follows:

- a) in respect of work submitted not more than five working days after the deadline:
  - i) the work will be assessed in the usual way;
  - ii) the primary grade and secondary band so determined will then be reduced by two secondary bands for each working day (or part of a working day) the work was submitted late.
- b) work submitted more than five working days after the deadline will be awarded grade H.

In unofficially plain language this means that any work submitted, without good cause, after the submission deadline loses two grade points immediately (e.g. from 18 = 'A5' to 16 = 'B2') and two more each subsequent 24 hours, until five working days, at which point it receives 0='H'.

If a deadline for submission of coursework is approaching and you encounter personal adverse circumstances likely to cause you to be late with your submission, then you can ask for an extension. Note that "personal adverse circumstances" refers or illness or other unforeseen events in your life affecting your ability to study. You cannot ask for an extension where late submission is due to your own misscheduling or poor execution of the required work. If you are seeking an extension of less than 5 working days then you should speak to the staff member who set the assignment and they will decide if an extension can be granted, and if so, for how long. An extension of up to 5 days does not require supporting evidence. If you are seeking an extension of 5 or more working days then you will have to complete a Good Cause Report (see above) and provide supporting evidence. The School Mitigating Circumstances Committee will decide whether to approve your extension on the basis of the information and evidence in your report

## **Plagiarism**

In most courses you will be asked to submit work for assessment, sometimes individually and sometimes in prescribed groups. It is expected that this work has been undertaken by those who submitted it. This is no more than straightforward honesty, and you agree to abide by the University's statement on plagiarism each year when you register. The submission of any other person's work is plagiarism, a form of cheating defined by the University below. Both the School and University take a serious view of such dishonest behaviour and will take action against any student found to have plagiarised. There are good reasons for this. One is that the work is part of your programme of study and you learn nothing if you do not undertake the work yourself. Secondly, the University upholds the quality of its academic qualifications and cannot tolerate having them lowered through dishonesty. There may be occasions when you work in groups and are required to submit work individually. Normally in is this situation you will be individually reporting on your own understanding of the work you did as a group or authoring one section of a group report. However, please discuss this with the staff concerned if you are in any way unsure how to submit joint work. You learn a great deal by discussing problems with fellow students and we do not wish to discourage this valuable activity.

A range of penalties may be applied when plagiarism is detected depending on the severity of the plagiarism. In all cases your Adviser will be informed and may have to report the cheating in references written for you. A severe view is taken of plagiarism in levels 3 and above, where marks contribute to your final degree classification. Cheating in examinations is also treated very seriously. The Introduction to the University's statement on plagiarism, part of the University Regulations <a href="https://www.gla.ac.uk/myglasgow/apg/policies/uniregs/#currentedition">https://www.gla.ac.uk/myglasgow/apg/policies/uniregs/#currentedition</a> is as follows.

- "31.1 The University's degrees and other academic awards are given in recognition of a student's personal achievement. All work submitted by students for assessment is accepted on the understanding that it is the student's own effort.
- 31.2 Plagiarism is defined as the submission or presentation of work, in any form, which is not one's own, without acknowledgement of the sources. Plagiarism includes inappropriate collaboration with others. Special cases of plagiarism can arise from a student using his or her own previous work (termed auto-plagiarism or self-plagiarism). Autoplagiarism includes using work that has already been submitted for assessment at this University or for any other academic award.
- 31.3 The incorporation of material without formal and proper acknowledgement (even with no deliberate intent to cheat) can constitute plagiarism. Work may be considered to be plagiarised if it consists of:
- · a direct quotation;
- a close paraphrase;
- an unacknowledged summary of a source;
- direct copying or transcription.

With regard to essays, reports and dissertations, the rule is: if information or ideas are obtained from any source, that source must be acknowledged according to the appropriate convention in that discipline; and any direct quotation must be placed in quotation marks and the source cited immediately. Any failure to acknowledge adequately or to cite properly other sources in submitted work is plagiarism. Under examination conditions, material learnt by rote or close paraphrase will be expected to follow the usual rules of reference citation otherwise it will be considered as plagiarism. Schools should provide guidance on other appropriate use of references in examination conditions.

- 31.4 Plagiarism is considered to be an act of fraudulence and an offence against University discipline. Alleged plagiarism, at whatever stage of a student's studies, whether before or after graduation, will be investigated and dealt with appropriately by the University.
- 31.5 The University reserves the right to use plagiarism detection systems, which may be externally based, in the interests of improving academic standards when assessing student work."

See <a href="https://www.gla.ac.uk/myglasgow/sld/plagiarism/">https://www.gla.ac.uk/myglasgow/sld/plagiarism/</a> for additional information.

## Formal Appeals

Students have the right to appeal against the decision made by an academic body charged with making judgements concerning progress, assessment or awards. The Code of Procedure for University Regulations <a href="https://www.gla.ac.uk/myglasgow/apg/policies/uniregs/#currentedition">https://www.gla.ac.uk/myglasgow/apg/policies/uniregs/#currentedition</a> and this handbook gives only an informal guide. You should act promptly if you are contemplating an appeal because you must intimate your intention to appeal within 10 working days of publication of the result or decision against which you are appealing.

There are three permitted grounds for appeal:

- i) unfair or defective procedure;
- ii) a failure to take account of medical or other adverse personal circumstances;
- iii) relevant medical or other personal circumstances which for good reason have not previously been presented.

In other words, the School has done something wrong in the way we have administered your course or exams, or we have not made reasonable allowances for a medical or other personal problem which you reported as Good Cause, or there was something affecting your academic performance which you have not told us about before (you must provide a good reason why you didn't tell us before).

If you appeal under any of the above grounds it is essential that you can provide substantive documentary evidence to support your appeal. If you do not provide evidence your appeal will be dismissed.

A student who feels that he or she has grounds for an appeal should first seek advice. The Students' Representative Council (SRC) Advice Centre has written an excellent leaflet on Appeals, available on the web <www.glasgowstudent.net/advice/academic/appeals/>.

Please note that you cannot appeal against academic judgement — in other words, simply because you think that you should have been given a higher grade for your work or you think you should have been given a better degree classification. It is important that you state clearly the resolution that you are seeking, and that this resolution is reasonable.

It takes a lot of work to assemble the case and the evidence needed for a successful appeal and it would be wise to discuss your position with somebody before starting. Your Adviser of Studies will be happy to help or you might prefer to approach the SRC Advice Centre; you should certainly get a copy of their leaflet.

Prior to submitting your formal appeal it is worthwhile sending a draft copy to the School as often it is possible to resolve the appeal locally without need for the formal process. This is referred to as an "informal resolution". You should send your draft appeal to the Chief Adviser of Studies, Dr Douglas Thomson (douglas.thomson@glasgow.ac.uk) for consideration. You will be informed quickly whether the School feels it can resolve the issue for you – if not you can then continue with the formal appeal to College.

In summary there are three things you have to consider:

- Do I have legitimate grounds for an appeal?
- Can I provide the necessary supporting evidence?
- Is the resolution I am seeking reasonable?

If the answer to any of these questions is "no" then there is no point in making an appeal.

You can find further information on Appeals at the Senate Office website: https://www.gla.ac.uk/myglasgow/apg/studentcodes/academicappealsstudents/

### Complaints Procedure

A complaint differs from an appeal in that it concerns the service provided by the University and not an academic decision. This might include issues associated with teaching, research supervision, accommodation, administrative or support services etc. If you have a complaint, please raise it with a member of staff in the area concerned. We aim to provide a response to the complaint within five working days. This is Stage 1.

If you are not satisfied with the response provided at Stage 1 you may take the complaint to Stage 2 of the procedure. Similarly, if your complaint is complex, you may choose to go straight to Stage 2. At this stage the University will undertake a detailed investigation of the complaint, aiming to provide a final response within 20 working days.

You can raise a Stage 2 complaint in the following ways:

by e-mail: complaints@glasgow.ac.uk

by phone: 0141 330 2506

by post: The Senate Office, The University of Glasgow, Glasgow, G12 8QQ in person: The Senate Office, Gilbert Scott Building, The University of Glasgow

Complaints do not have to be made in writing but you are encouraged to submit the completed Complaint Form < <a href="https://www.gla.ac.uk/connect/complaints/#/howtomakeacomplaint,downloads">https://www.gla.ac.uk/connect/complaints/#/howtomakeacomplaint,downloads</a> whether it is at Stage 1 or Stage 2. This will help to clarify the nature of the complaint and the remedy that you are seeking.

Remember that the SRC Advice Centre is available to provide advice and assistance if you are considering making a complaint. (Tel: 0141 339 8541; e-mail: advice@src.gla.ac.uk)

# **School and University Policies**

## Health and Safety Policy

#### Aim

The James Watt School of Engineering oversees the health and safety of all students while studying degree programmes within the School of Engineering.

#### Organisation

The Head of the School of Engineering is responsible for safety within the school. He has appointed a Safety Committee to take care of the day-to-day implementation of safety matters.

The maintenance of protection for hazardous equipment and the condition of the laboratory environment is the responsibility of designated school technicians. The provision of local safety instructions and anything particular to any laboratory exercise is the responsibility of the relevant course leader or supervisor as appropriate. Staff who are running laboratories or directly supervising postgraduate students are responsible for safety in the laboratory. The Safety Committee carries out a monitoring function to ensure that appropriate safety information and procedures are available.

#### **Objectives**

The school undertakes to provide or specify the following in so far as is reasonably practical:

- Provide safety instructions for students;
- Provide protection for hazardous equipment;
- Provide local safety instructions;
- Provide instructions for labs;
- Specify safety clothing;
- · Specify supervision required and provided;
- Inform students and staff of emergency services, e.g., first aid;
- · Provide instruction on use of mains services;
- Provide instruction to staff about how to deal with problems which could arise during laboratory.

## Safety Instructions

#### General

- Student must watch the Health and Safety video on the moodle page <a href="https://moodle.gla.ac.uk/course/view.php?id=21643">https://moodle.gla.ac.uk/course/view.php?id=21643</a>
- Students must read the School of Engineering Safety Handbook, available online via https://www.gla.ac.uk/media/Media 392787 smxx.pdf
- Food must not be brought into laboratories;
- Clothing worn in laboratories must be appropriate, e.g., no trailing scarves;
- Students should behave in a calm manner while in the laboratories, e.g., no running;
- Students should not undertake any experiment without proper guidance and instruction from academic or technical staff;
- Local safety signs must be obeyed.

#### Fire Discovery

If you discover a fire:

- warn anybody in the immediate vicinity;
- use one of the "break glass" boxes to sound the alarm;
- only attempt to fight the fire if doing so does not threaten your chance of escape should the fire get out of control.

There are fire extinguishers throughout the building.

## Policy on Smoking

In accordance with the law, smoking is not permitted in any University building or official vehicle. All areas in all buildings are non-smoking.

# **Equal Opportunities**

The University has adopted a code of practice on Equal Opportunities for students and staff. The University aims to ensure equality of opportunity for all its students in teaching, learning and assessment, and in the provision of services. The University aims to create conditions whereby students are treated solely on the basis of their merits, abilities and potential, regardless of age, socio- economic background, religious belief, ethnic origin, gender, marital or family status, sexual orientation or disability.

### Disability

The University is committed to developing an environment in which students with additional needs can pursue their intellectual and personal development with appropriate support.

University of Glasgow Disability Service <a href="https://www.gla.ac.uk/myglasgow/disability/">https://www.gla.ac.uk/myglasgow/disability/</a>

The University of Glasgow Disability Service supports students with disabilities, long-term health and mental health conditions or learning differences, such as dyslexia, to reach their academic potential and experience in full all that the University has to offer.

You can find further information, and self-refer, via the QR code below:



The disability co-ordinator for the School is Natalie McIntyre (natalie.mcintyre@glasgow.ac.uk)

## Athena Swan

The School of Engineering was successful in its application for Athena Swan Silver in September 2021. This is a great achievement for the School and to our commitment to ensuring equality for all our staff and students. There is further information on the University website at: <a href="https://www.gla.ac.uk/myglasgow/equalitydiversity/athenaswan/">https://www.gla.ac.uk/myglasgow/equalitydiversity/athenaswan/</a>

# Go Abroad

Each year many University of Glasgow students complete part of their degree in another country, exploring different cultures and lifestyles by studying or working abroad. The University scheme that facilitates this is referred to as "Go Abroad":

https://www.gla.ac.uk/myglasgow/students/goabroad/

Take this opportunity to go abroad:

- explore the world as part of your degree: no need for a gap year
- develop a new perspective on your studies
- develop a more international outlook
- travel to new and amazing places
- go on a journey of personal development
- make lifelong friends from all over the world
- enhance your CV to make you stand out
- support and recognition for your study through the programme
- no additional tuition fees

The School of Engineering recommend students have a GPA of 14 or more to study abroad and in our experience Year 3 is the best year to take abroad. It is vitally important that students research the potential host universities and propose a curriculum where they have completed a detailed course mapping between University of Glasgow and the host institution. This must be approved by the senior advisor before applying. A study abroad briefing for any School of Engineering students considering going abroad will be held in the October of each academic year.

The School Go Abroad co-ordinator is Olatokunbo Olaniyan < Olatokunbo Olaniyan@glasgow.ac.uk>.

# **Technical Themes and Graduate Attributes**

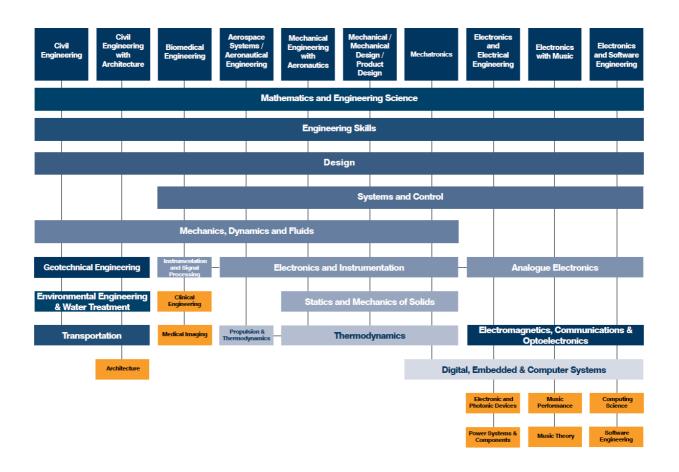
As an Engineering Graduate from the University of Glasgow you will be of great worth to future employers because of the abilities you have developed in:

- 1. Discipline Specific Learning—skills attributes and abilities vital to engineers in a small number of engineering disciplines—for instance a Civil Engineer might develop skills in designing foundations, and an Aero Engineer in assessing wind tunnel results;
- 2. General Engineering Learning—skills vital to all engineers—for instance the ability to use computer programmes or to apply mathematics in creative ways to solve engineering problems;
- 3. General Graduate Attributes—abilities common to all University graduates—for instance the ability to articulate and explain complex ideas to lay and professional audiences.

In Engineering, some of these abilities take a number of years to fully develop. This is why we have classes like ENG1062 Dynamics 1, ENG2084 Dynamics 2, ENG3039 Dynamics 3 – all of which might be capped in 4<sup>th</sup> year ENG4067 Flight Dynamics 4 for an Aero Engineer. In addition, these abilities can usually be organized into learning Themes – and the Dynamics classes are vital to the *Dynamics and Aeroelasticity* theme which is at the core of Aeronautical Engineering.

So that you can see more clearly how your degree will develop in future years, we have laid out the major learning themes of our engineering degrees in the table immediately below (you can easily see which themes are Discipline Specific and which are general to all Engineering), and then in tables you can find online, show how each course fits into the learning themes of each of our degrees.

In the final table we also list the more general graduate attributes expected from each graduate of the University of Glasgow – taken from <a href="https://www.gla.ac.uk/myglasgow/students/attributes/">https://www.gla.ac.uk/myglasgow/students/attributes/</a>



# University of Glasgow graduate attributes

The academic abilities, personal qualities and transferable skills which all students will have the opportunity to develop as part of their University of Glasgow experience.

#### Attribute

#### Academic Dimension

Understand and respect the values, principles, methods and limitations of their discipline(s).

Are intellectually curious and engage in the pursuit of new knowledge and understanding.

Identify, define and assess complex issues and ideas in a researchable form.

Are experienced in self-directed learning and authentic research-led enquiry.

Articulate complex ideas with respect to the needs and abilities of diverse audiences.

Defend their ideas in dialogue with peers and challenge disciplinary assumptions.

Experience multi-disciplinary and/or inter-disciplinary learning in an internationally renowned institution.

Engage with the scholarly community and respect others' views and perspectives.

Consider and act upon the ethical, social and global responsibilities of their actions.

Use feedback productively to reflect on their work, achievements and self-identity.

#### www.glasgow.ac.uk/attributes

#### Personal Dimension

Possess a breadth and depth of knowledge within their disciplinary area(s).

Are able to locate, analyse and synthesise information from a variety of sources and media.

Exercise critical judgement in evaluating sources of information and constructing meaning.

Are motivated, conscientious and self-sufficient individuals capable of substantial independent

Present their ideas clearly and concisely in high quality written and spoken English.

Possess excellent interpersonal and social skills fostered within an internationalised community.

Respond flexibly and adapt their skills and knowledge to excel in unfamiliar situations.

Are experienced in working in groups and teams of varying sizes and in a variety of roles.

Welcome exposure to the richness of multi-cultural ways of thinking.

Set aspirational goals for continuing personal, professional and career development.

#### Transferable Dimension

Possess discipline-relevant professional skills, knowledge and competencies.

Are able to investigate problems and provide effective solutions.

Apply creative, imaginative and innovative thinking and ideas to problem solving.

Manage their personal performance to meet expectations and demonstrate drive, determination, and accountability.

Communicate clearly and confidently, and listen and negotiate effectively with others.

Demonstrate enthusiasm, leadership and the ability to positively influence others.

Demonstrate resilience, perseverance and positivity in multi-tasking, dealing with change and meeting new challenges.

Conduct themselves professionally and contribute positively when working in a team.

Have a practical and contemporary knowledge of and international experiences, opportunities and relevant professional, ethical and legal frameworks.

> Identify and articulate their skills, knowledge and understanding confidently and in a variety of contexts.

#### Contact:

School of Engineering Teaching Office University of Glasgow Email: Eng-teachingoffice@glasgow.ac.uk

Address: Room 620

James Watt South Building University of Glasgow Glasgow G12 8QQ

The University of Glasgow, charity number SC004401.