

Pre-entry Advice and Guidance



Course covered in this Pre-entry Advice and Guidance:

Foundation Degree in Mechanical Engineering Level 5

School of

Science, Engineering
& Construction

About this Pre-entry Advice and Guidance

This guidance will provide you with:

1. Course information – including what you will learn and how you will be assessed.
2. Course entry requirements.
3. Progression pathways – future learning and/or employment.
4. Your next steps.

This guidance should help you decide if this is the right course for you.



**QUEEN'S
UNIVERSITY
BELFAST**

FACULTY OF
ENGINEERING
AND PHYSICAL
SCIENCES



Course Information

Course Title	Level	Awarding Body	Annual Fees		Full-time or part-time	Duration (e.g. one year)	Location
			Course	Additional			
Foundation Degree in Mechanical Engineering	5	Queens University Belfast	£ 3,020* *subject to confirmation		Full time	Two years	Millfield

- Fees applicable for NI students. Fees differ for ROI / GB / European and International students.
- Additional costs
 - Students undertaking a period of work placement, should be aware that they will have to fund additional travel and living costs.
 - Students may wish to consider purchasing an electronic device; costs will vary depending on the specification of the model chosen.
 - Note software used is based on the Windows Operation System.
 - There are also additional charges for graduation ceremonies and library fines.

School of

Science, Engineering
& Construction

Course Content & Assessment – 1st Year

Module Title	Content	How is this course assessed?
Introduction to Mechanical Engineering	This module introduces the principles of engineering design and manufacturing processes and students will gain practical experience of the processes through the hands-on use of manufacturing engineering equipment in the production of working prototypes.	100% course work
Introductory Mathematics	This module provides students with a basic understanding of the numerical and analytical methods which are necessary for the solution of engineering problems.	20% course work / 80% exam
Solid Mechanics and Dynamics A	This module introduces the student to forces and moments applied to simple structures and the numerical analysis employed to solve complex structural problems. This module also covers momentum, energy and work done for systems under motion.	20% course work / 80% exam

School of

Science, Engineering
& Construction

Course Content & Assessment – 1st Year

Module Title	Content	How is this course assessed?
Thermodynamics and Fluid Mechanics A	This module provides the student with an introduction to the Thermodynamic and Fluid Mechanics properties and processes including thermodynamics laws, heat transfer, pressure measurement and fluid friction calculations.	20% course work / 80% exam
Materials, Design and Manufacturing	This module covers the basics of materials, material selection, properties and manufacturing techniques. Also covered are the basics of 2D and 3D CAD and to understand how CAD techniques fit into Engineering, Design and Manufacturing strategies.	70% course work / 30% exam

School of

Science, Engineering
& Construction

Course Content & Assessment – 2nd Year

Module Title	Content	How is this course assessed?
Work Based Learning	Work Based Learning allows the student to practice the theory and principles they have been taught in lectures, tutorials and practicals within an engineering scenario.	100% course work
Engineering Maths	This module is intended to provide students with advanced mathematical methods to solve complex engineering problems.	20% course work / 80% exam
Solid Mechanics and Dynamics B	This module builds upon the year 1 module to introduce further applications of this topic area e.g. Out of balance forces, forces and damping in rotational assemblies and complex stress relationships	20% course work / 80% exam
Thermodynamics and Fluid Mechanics B	This module advances the students understanding of thermodynamics cycles, steam properties and mechanics of fluid forces and flow on submerged structures.	20% course work / 80% exam

School of

Science, Engineering
& Construction

Course Content & Assessment – 2nd Year

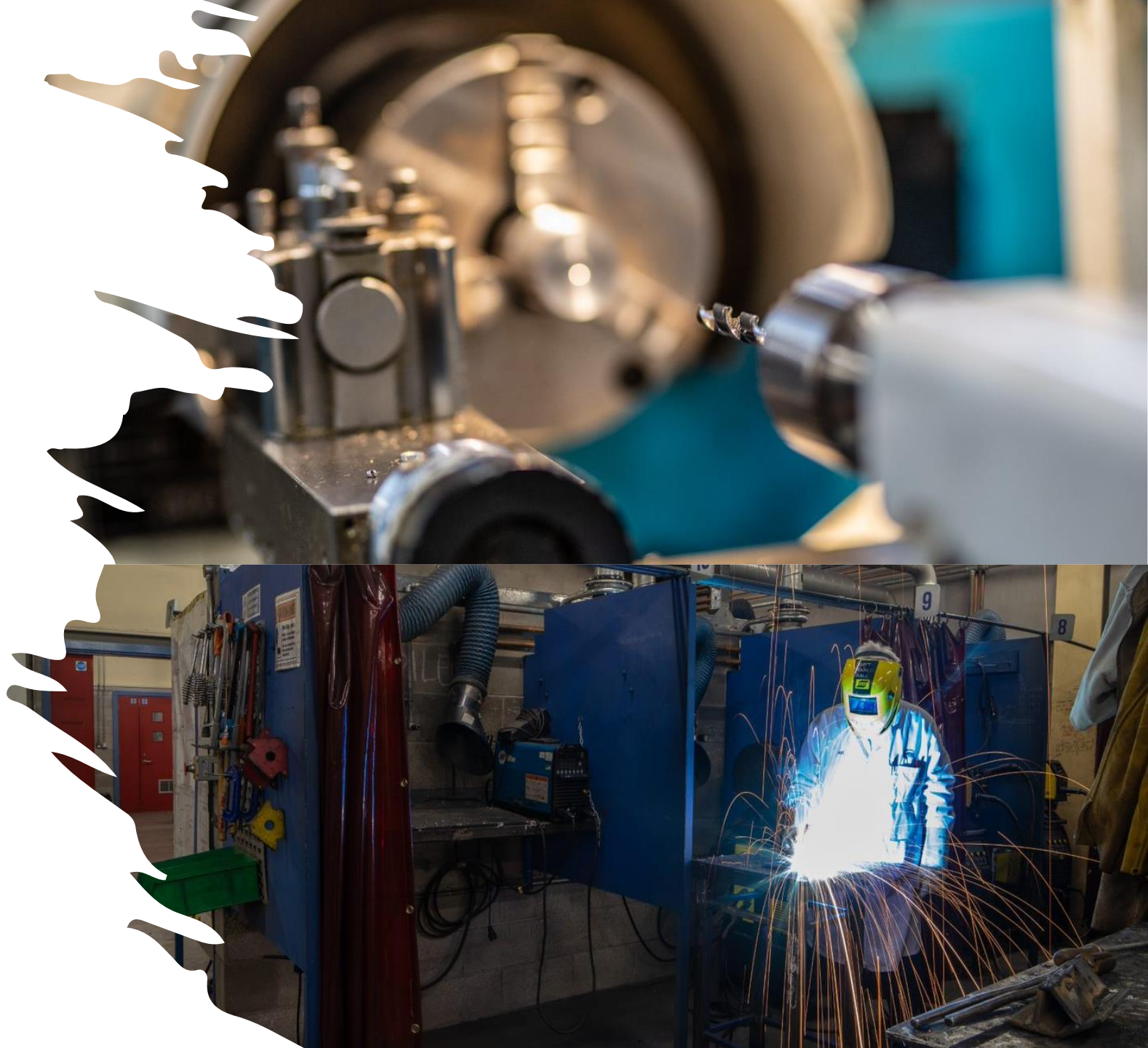
Module Title	Content	How is this course assessed?
CAD B	This module advances the students understanding of CAD to include the use of surfaces, sheet metal, design tables and assemblies.	100% course work
Electrical Components and Systems	This module covers the fundamentals of electricity, circuit analysis with applications to both DC and AC circuits.	20% course work / 80% exam

School of

Science, Engineering
& Construction

Work-based learning

- Provides Foundation degree students with an opportunity to gain authentic and innovative work experience.
- Enables learners to take on appropriate role(s) within the workplace.
- Opportunity to learn and apply the skills and knowledge they have acquired as an integrated element of the programme.
- Students must source and secure a suitable placement location/provider.
- Assessment is by a combination of diary, reports, and presentation.



Additional Information

Additional Support	• Additional support is available for you in class and for exams if you have a confirmed disability, learning difficulty or long-term medical condition. For example extra time, a reader and/or a scribe. • Contact the <u>Inclusive Learning Team</u> to see what support is available. You will also need to complete an LS1 Form at the start of the academic year.
Criminal Disclosure	• We promote equality of opportunity and welcome enrolments from a wide range of applicants, including those with criminal convictions. • To manage any risk, you <u>MUST</u> tell us about any unspent criminal convictions. For certain courses, you must disclose all criminal convictions. • To do this - complete a <u>Criminal Offence(s) Disclosure Form or an Enhanced Criminal Offence(s) Disclosure Form</u>. By disclosing criminal convictions you will not automatically be excluded from the application/ enrolment process.

School of

Science, Engineering
& Construction

Progression Pathways

