



**Swansea University
Prifysgol Abertawe**

**FACULTY OF SCIENCE AND
ENGINEERING**

**UNDERGRADUATE STUDENT
HANDBOOK**

YEAR 2 (FHEQ LEVEL 5)

**MECHANICAL ENGINEERING
DEGREE PROGRAMMES**

**SUBJECT SPECIFIC
PART TWO OF TWO
MODULE AND COURSE STRUCTURE
2024-25**

Welcome to the Faculty of Science and Engineering!

Whether you are a new or a returning student, we could not be happier to be on this journey with you.

At Swansea University and in the Faculty of Science and Engineering, we believe in working in partnership with students. We work hard to break down barriers and value the contribution of everyone.

Our goal is an inclusive community where everyone is respected, and everyone's contributions are valued. Always feel free to talk to academic, technical and administrative staff, administrators - I'm sure you will find many friendly helping hands ready to assist you. And make the most of living and working alongside your fellow students.

During your time with us, please learn, create, collaborate, and most of all – enjoy yourself!

Professor David Smith
Pro-Vice-Chancellor and Executive Dean
Faculty of Science and Engineering



Faculty of Science and Engineering	
Pro-Vice-Chancellor and Executive Dean	Professor David Smith
Head of Operations	Mrs Ruth Bunting
Associate Dean – Education	Dr Laura Roberts
School of Aerospace, Civil, Electrical, and Mechanical Engineering	
Head of School	Professor Antonio Gil
School Education Lead	Professor Cris Arnold
Head of Mechanical Engineering	Dr Eifion Jewell
Mechanical Engineering Programme Director	Professor Will Newton - w.newton@swansea.ac.uk
Year Coordinator	Dr Michael Togneri - m.togneri@swansea.ac.uk

DISCLAIMER

The Faculty of Science and Engineering has made all reasonable efforts to ensure that the information contained within this publication is accurate and up-to-date when published but can accept no responsibility for any errors or omissions.

The Faculty of Science and Engineering reserves the right to revise, alter or discontinue degree programmes or modules and to amend regulations and procedures at any time, but every effort will be made to notify interested parties.

It should be noted that not every module listed in this handbook may be available every year, and changes may be made to the details of the modules. You are advised to contact the Faculty of Science and Engineering directly if you require further information.

The 24-25 academic year begins on 23 September 2024

Full term dates can be found [here](#)

DATES OF 24-25 TERMS

23 September 2024 – 13 December 2024

06 January 2025 – 11 April 2025

06 May 2025 – 06 June 2025

SEMESTER 1

23 September 2024 – 27 January 2025

SEMESTER 2

27 January 2025 – 06 June 2025

SUMMER

09 June 2025 – 19 September 2025

IMPORTANT INFORMATION ON ACADEMIC INTEGRITY

Swansea University and the Faculty of Science of Engineering takes any form of **academic misconduct** very seriously. In order to maintain academic integrity and ensure that the quality of an Award from Swansea University is not diminished, it is important to ensure that all students are judged on their ability. No student should have an unfair advantage over another as a result of academic misconduct - whether this is in the form of **Plagiarism, Collusion** or **Commissioning**.

It is important that you are aware of the **guidelines** governing Academic Misconduct within the University/Faculty of Science and Engineering and the possible implications. The Faculty of Science and Engineering will not take intent into consideration and in relation to an allegation of academic misconduct - there can be no defence that the offence was committed unintentionally or accidentally.

Please ensure that you read the University webpages covering the topic – procedural guidance [here](#) and further information [here](#). You should also read the Faculty Part One handbook fully, in particular the pages that concern Academic Misconduct/Academic Integrity.

STUDENT SUPPORT

The **Student Experience and Information Team** are here to support you through your studies and to provide non-judgemental advice and guidance. If you have any questions relating to your academic or personal life you can contact the Team and chat through your support options.

The Team is available for in-person support meetings and can also be contacted via email (studentsupport-scienceengineering@swansea.ac.uk) or phone (**+44 (0) 1792 295514**). You can access their full contact details [here](#).

To visit the Team you can attend either of the following Receptions:

- Reception in the Foyer of Engineering Central, [Bay Campus](#)
- Reception on the first-floor landing of the Wallace Building, [Singleton Park Campus](#)
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Standard Reception opening hours are Monday to Friday from 9am to 5pm however, this may vary outside of term time.

The current [FSE Student webpages](#) also contain useful information and links to additional resources:



READING LISTS

Reading lists for each module are available on the course Canvas page and are also accessible via <http://ifindreading.swan.ac.uk/>.

We do not expect you to purchase textbooks, unless it is a specified key text for the course.

THE DIFFERENCE BETWEEN COMPULSORY AND CORE MODULES

Compulsory modules must be **pursued** by a student.

Core modules must not only be **pursued**, but also **passed** before a student can proceed to the next level of study or qualify for an award. Failures in core modules must be redeemed.

Further information can be found under “Modular Terminology” on the following link - <https://myuni.swansea.ac.uk/academic-life/academic-regulations/taught-guidance/essential-info-taught-students/your-programme-explained/>

Year 2 (FHEQ Level 5) 2024/25

Mechanical Engineering

BEng Mechanical Engineering[H300,H307]

BEng Mechanical Engineering with a Year Abroad[H308]

MEng Mechanical Engineering[H304]

MEng Mechanical Engineering with a Year Abroad[H309]

Compulsory Modules

Semester 1 Modules	Semester 2 Modules
EG-261 Thermodynamics 2 10 Credits Dr RS Ransing CORE	EG-2003 Electromechanical Control 10 Credits Dr C Li CORE
EG-264 Computer Aided Engineering 10 Credits Mr R Rees CORE	EG-260 Dynamics 1 (Mech & Aero) 10 Credits Prof H Haddad Khodaparast CORE
EG-269 Design of Machine Elements 10 Credits Dr CA Griffiths CORE	EG-262 Stress Analysis 1 10 Credits Dr L Prakash CORE
EGA265 Fluid Mechanics 2 10 Credits Dr EH Jewell CORE	EG-284 Manufacturing Technology II 10 Credits Dr AA Fahmy Abdo CORE
	EGA214 Mechanical Engineering Design 2 10 Credits Dr W Harrison/Dr PJ Dorrington/Dr B Morgan/Dr JS Thompson CORE
EG-268 Experimental Studies - Mechanical 10 Credits Dr H Arora/Dr A Coccarelli/Dr N Jamia/Dr EH Jewell CORE	
EG-277 Research Project Preparation 0 Credits Dr AC Tappenden/Dr M Fazeli/Mrs KM Thomas	
Total 120 Credits	

Optional Modules

Choose exactly 20 credits

Design Pathway

EG-231	Heat Transfer	Dr A Coccarelli/Dr DR Daniels	TB1	10 (CORE)
EG-255	Circuit Analysis	Prof PM Holland	TB1	10 (CORE)

Or

Choose exactly 20 credits

Manufacturing Pathway

<u>EG-231</u>	Heat Transfer	Dr A Coccarelli/Dr DR Daniels	TB1	10 (CORE)
<u>EG-255</u>	Circuit Analysis	Prof PM Holland	TB1	10 (CORE)
<u>EGA266</u>	Digital Manufacturing	Mr R Rees/Dr AK Bastola/Mr J Davies/..	TB1	10 (CORE)

Year 2 (FHEQ Level 5) 2024/25

Mechanical Engineering

BEng Mechanical Engineering with a Year in Industry[H305]

MEng Mechanical Engineering with a Year in Industry[H306]

Compulsory Modules

Semester 1 Modules	Semester 2 Modules
EG-261 Thermodynamics 2 10 Credits Dr RS Ransing CORE	EG-2003 Electromechanical Control 10 Credits Dr C Li CORE
EG-264 Computer Aided Engineering 10 Credits Mr R Rees CORE	EG-260 Dynamics 1 (Mech & Aero) 10 Credits Prof H Haddad Khodaparast CORE
EG-269 Design of Machine Elements 10 Credits Dr CA Griffiths CORE	EG-262 Stress Analysis 1 10 Credits Dr L Prakash CORE
EGA265 Fluid Mechanics 2 10 Credits Dr EH Jewell CORE	EG-284 Manufacturing Technology II 10 Credits Dr AA Fahmy Abdo CORE
	EGA214 Mechanical Engineering Design 2 10 Credits Dr W Harrison/Dr PJ Dorrington/Dr B Morgan/Dr JS Thompson CORE
EG-233 Placement Preparation: Engineering Industrial Year 0 Credits Dr SA Rolland/Dr V Samaras	
EG-268 Experimental Studies - Mechanical 10 Credits Dr H Arora/Dr A Coccarelli/Dr N Jamia/Dr EH Jewell CORE	
EG-277 Research Project Preparation 0 Credits Dr AC Tappenden/Dr M Fazeli/Mrs KM Thomas	
Total 120 Credits	

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<u>EGA266</u>	Digital Manufacturing	Mr R Rees/Dr AK Bastola/Mr J Davies/..	TB1	10 (CORE)