Swansea University
Prifysgol Abertawe

FACULTY OF SCIENCE AND ENGINEERING

UNDERGRADUATE STUDENT HANDBOOK

YEAR 2 (FHEQ LEVEL 5)

AEROSPACE ENGINEERING

DEGREE PROGRAMMES

SUBJECT SPECIFIC
PART TWO OF TWO
MODULE AND COURSE STRUCTURE
2025-26

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.

IMPORTANT

Term Dates

The 25-26 academic year begins on 29 September 2025

Full term dates can be found here

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.

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/

Key Programme Staff

Aerospace Engineering Programme Director	Aerospace Engineering Year Coordinator
Dr Nidhal Jamia	Dr Nick Croft

Year 2 (FHEQ Level 5) 2025/26
Aerospace Engineering
BEng Aerospace Engineering[H400,H405]
MEng Aerospace Engineering[H403]

Compulsory Modules

Semester 1 Modules	Semester 2 Modules
EG-2012 **AI and Aerospace Systems** **20 Credits** **Dr MS Bonney**	**EG-260** **Dynamics 1 (Mech & Aero)** **10 Credits** **Prof H Haddad Khodaparast** **CORE**
EG-293 **Aerodynamics** **10 Credits** **Dr A Celik** **CORE**	**EG-263** **Engineering Design 2** **10 Credits** **Dr N Jamia** **CORE**
EGA228 **Aerospace Control** **10 Credits** **Dr M Jiffri** **CORE**	**EG-296** **Flight Mechanics** **10 Credits** **Prof WG Dettmer** **CORE**
EG-2002 **Aerospace Structures** **20 Credits** **Dr AD Shaw/Prof JC Arnold** **CORE**	
EG-277 **Research Project Preparation** **0 Credits** **Dr AC Tappenden/Dr M Fazeli/Mrs KM Thomas**	
EGA229 **Experimental Studies - Aerospace** **10 Credits** **Mr JK Mcfadzean/Prof JC Arnold/Dr S Azizishirvanshahi/Dr A Coccarelli/Dr Z Jelic** **CORE**	
EGA230 **Computer Aided Engineering (Aerospace)** **10 Credits** **Dr MJ Clee/Dr X Zou** **CORE**	
EGT201 **Engineering Tutorials: Year 2** **0 Credits** **Prof JC Arnold**	
Total 120 Credits	

Optional Modules

Choose exactly 10 credits
Space Stream

EGA215	Rocket and Space Technology	Dr MJ Clee	TB2	10 (CORE)

Or

Choose exactly 10 credits
Structural/Computational Stream

EGA206	Aerospace Structural Mechanics and Materials	Prof DJ Penney/Dr AS Ademiloye	TB2	10 (CORE)

Or

Choose exactly 10 credits

Material/Propulsion Stream

EG-213	Mechanical Properties of Materials	Prof DJ Penney/Prof MT Whittaker	TB2	10 (CORE)

Year 2 (FHEQ Level 5) 2025/26
Aerospace Engineering
MEng Aerospace Engineering with a Year Abroad[H406]

Compulsory Modules

Semester 1 Modules	Semester 2 Modules
EG-2012 **AI and Aerospace Systems** **20 Credits** **Dr MS Bonney**	**EG-260** **Dynamics 1 (Mech & Aero)** **10 Credits** **Prof H Haddad Khodaparast** **CORE**
EG-293 **Aerodynamics** **10 Credits** **Dr A Celik** **CORE**	**EG-263** **Engineering Design 2** **10 Credits** **Dr N Jamia** **CORE**
EGA228 **Aerospace Control** **10 Credits** **Dr M Jiffri** **CORE**	**EG-296** **Flight Mechanics** **10 Credits** **Prof WG Dettmer** **CORE**
EG-2002 **Aerospace Structures** **20 Credits** **Dr AD Shaw/Prof JC Arnold**	
EG-277 **Research Project Preparation** **0 Credits** **Dr AC Tappenden/Dr M Fazeli/Mrs KM Thomas**	
EGA229 **Experimental Studies - Aerospace** **10 Credits** **Mr JK Mcfadzean/Prof JC Arnold/Dr S Azizishirvanshahi/Dr A Coccarelli/Dr Z Jelic** **CORE**	
EGA230 **Computer Aided Engineering (Aerospace)** **10 Credits** **Dr MJ Clee/Dr X Zou** **CORE**	
EGT201 **Engineering Tutorials: Year 2** **0 Credits** **Prof JC Arnold**	
Total 120 Credits	

Optional Modules

Choose exactly 10 credits
Space Stream

EGA215	Rocket and Space Technology	Dr MJ Clee	TB2	10 (CORE)

Or

Choose exactly 10 credits
Structural/Computational Stream

EGA206	Aerospace Structural Mechanics and Materials	Prof DJ Penney/Dr AS Ademiloye	TB2	10 (CORE)

Or

Choose exactly 10 credits
Material/Propulsion Stream

EG-213	Mechanical Properties of Materials	Prof DJ Penney/Prof MT Whittaker	TB2	10 (CORE)

Year 2 (FHEQ Level 5) 2025/26
Aerospace Engineering
BEng Aerospace Engineering with a Year in Industry[H402]

Compulsory Modules

Semester 1 Modules	Semester 2 Modules
EG-2012 AI and Aerospace Systems 20 Credits Dr MS Bonney CORE	EG-260 Dynamics 1 (Mech & Aero) 10 Credits Prof H Haddad Khodaparast CORE
EG-293 Aerodynamics 10 Credits Dr A Celik CORE	EG-263 Engineering Design 2 10 Credits Dr N Jamia CORE
EGA228 Aerospace Control 10 Credits Dr M Jiffri CORE	EG-296 Flight Mechanics 10 Credits Prof WG Dettmer CORE
EG-2002 Aerospace Structures 20 Credits Dr AD Shaw/Prof JC Arnold CORE	
EG-233 Placement Preparation: Engineering Industrial Year 0 Credits Dr SA Rolland/Dr V Samaras	
EG-277 Research Project Preparation 0 Credits Dr AC Tappenden/Dr M Fazeli/Mrs KM Thomas	
EGA229 Experimental Studies - Aerospace 10 Credits Mr JK Mcfadzean/Prof JC Arnold/Dr S Azizishirvanshahi/Dr A Coccarelli/Dr Z Jelic CORE	
EGA230 Computer Aided Engineering (Aerospace) 10 Credits Dr MJ Clee/Dr X Zou CORE	
EGT201 Engineering Tutorials: Year 2 0 Credits Prof JC Arnold	
Total 120 Credits	

Optional Modules

Choose exactly 10 credits
Space Stream

EGA215	Rocket and Space Technology	Dr MJ Clee	TB2	10 (CORE)

Or

Choose exactly 10 credits
Structural/Computational Stream

EGA206	Aerospace Structural Mechanics and Materials	Prof DJ Penney/Dr AS Ademiloye	TB2	10 (CORE)

Or
Choose exactly 10 credits
Material/Propulsion Stream

EG-213	Mechanical Properties of Materials	Prof DJ Penney/Prof MT Whittaker	TB2	10 (CORE)

Year 2 (FHEQ Level 5) 2025/26
Aerospace Engineering
MEng Aerospace Engineering with a Year in Industry[H404]

Compulsory Modules

Semester 1 Modules	Semester 2 Modules
EG-2012 **AI and Aerospace Systems** **20 Credits** **Dr MS Bonney**	**EG-260** **Dynamics 1 (Mech & Aero)** **10 Credits** **Prof H Haddad Khodaparast** **CORE**
EG-293 **Aerodynamics** **10 Credits** **Dr A Celik** **CORE**	**EG-263** **Engineering Design 2** **10 Credits** **Dr N Jamia** **CORE**
EGA228 **Aerospace Control** **10 Credits** **Dr M Jiffri** **CORE**	**EG-296** **Flight Mechanics** **10 Credits** **Prof WG Dettmer** **CORE**
EG-2002 **Aerospace Structures** **20 Credits** **Dr AD Shaw/Prof JC Arnold** **CORE**	
EG-233 **Placement Preparation: Engineering Industrial Year** **0 Credits** **Dr SA Rolland/Dr V Samaras**	
EG-277 **Research Project Preparation** **0 Credits** **Dr AC Tappenden/Dr M Fazeli/Mrs KM Thomas**	
EGA229 **Experimental Studies - Aerospace** **10 Credits** **Mr JK Mcfadzean/Prof JC Arnold/Dr S Azizishirvanshahi/Dr A Coccarelli/Dr Z Jelic** **CORE**	
EGA230 **Computer Aided Engineering (Aerospace)** **10 Credits** **Dr MJ Clee/Dr X Zou** **CORE**	
EGT201 **Engineering Tutorials: Year 2** **0 Credits** **Prof JC Arnold**	
Total 120 Credits	

Optional Modules

Choose exactly 10 credits
Space Stream

EGA215	Rocket and Space Technology	Dr MJ Clee	TB2	10 (CORE)

Or

Choose exactly 10 credits
Structural/Computational Stream

EGA206	Aerospace Structural Mechanics and Materials	Prof DJ Penney/Dr AS Ademiloye	TB2	10 (CORE)

Or
Choose exactly 10 credits
Material/Propulsion Stream

EG-213	Mechanical Properties of Materials	Prof DJ Penney/Prof MT Whittaker	TB2	10 (CORE)

Year 2 (FHEQ Level 5) 2025/26
Aerospace Engineering
BEng Aerospace Engineering with a Year Abroad[H401]

Compulsory Modules

Semester 1 Modules	Semester 2 Modules
EG-2012 **AI and Aerospace Systems** **20 Credits** **Dr MS Bonney**	**EG-260** **Dynamics 1 (Mech & Aero)** **10 Credits** **Prof H Haddad Khodaparast** **CORE**
EG-293 **Aerodynamics** **10 Credits** **Dr A Celik** **CORE**	**EG-263** **Engineering Design 2** **10 Credits** **Dr N Jamia** **CORE**
EGA228 **Aerospace Control** **10 Credits** **Dr M Jiffri** **CORE**	**EG-296** **Flight Mechanics** **10 Credits** **Prof WG Dettmer** **CORE**
EG-2002 **Aerospace Structures** **20 Credits** **Dr AD Shaw/Prof JC Arnold** **CORE**	
EG-277 **Research Project Preparation** **0 Credits** **Dr AC Tappenden/Dr M Fazeli/Mrs KM Thomas**	
EGA229 **Experimental Studies - Aerospace** **10 Credits** **Mr JK Mcfadzean/Prof JC Arnold/Dr S Azizishirvanshahi/Dr A Coccarelli/Dr Z Jelic** **CORE**	
EGA230 **Computer Aided Engineering (Aerospace)** **10 Credits** **Dr MJ Clee/Dr X Zou** **CORE**	
EGT201 **Engineering Tutorials: Year 2** **0 Credits** **Prof JC Arnold**	
Total 120 Credits	

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EGA206	Aerospace Structural Mechanics and Materials	Prof DJ Penney/Dr AS Ademiloye	TB2	10 (CORE)

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EG-213	Mechanical Properties of Materials	Prof DJ Penney/Prof MT Whittaker	TB2	10 (CORE)