



**Swansea University
Prifysgol Abertawe**

FACULTY OF SCIENCE AND ENGINEERING

UNDERGRADUATE STUDENT HANDBOOK

YEAR 3 (FHEQ LEVEL 6)

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 Hadi Madinei

Year 3 (FHEQ Level 6) 2025/26

Aerospace Engineering MEng Aerospace Engineering[H403]

Compulsory Modules

Semester 1 Modules	Semester 2 Modules
EG-3081 Rotorcraft Theory 10 Credits Dr S Azizishirvanshahi CORE	EG-397 Propulsion 10 Credits Prof MT Whittaker CORE
EG-335 Gas Dynamics 10 Credits Prof WG Dettmer CORE	
EG-360 Dynamics 2 10 Credits Dr S Azizishirvanshahi CORE	
EG-3080 Engineering Management (Aero, EEE, Mech) 10 Credits Prof JC Arnold/Dr HKJ Jahanger/Dr EH Jewell/Mr JK Mcfadzean/Dr B Morgan/Ms LE Norman-Lewis/... CORE	
EG-353 Individual Engineering Project 30 Credits Dr AC Tappenden/Dr M Fazeli/Prof PJ Holliman CORE	
EGA302A Aerospace Engineering Design 3 20 Credits Mr JK Mcfadzean/Prof BJ Evans/Dr N Jamia/Dr AD Shaw/Dr NV Taylor CORE	
Total 120 Credits	

Optional Modules

Choose exactly 20 credits

Space Stream -

These options MUST be chosen by those on the Space Stream

EGA321	Satellite Systems	Dr X Zou	TB1	10 (CORE)
EGA341	Space Propulsion and Power Systems	Dr Z Jelic	TB2	10 (CORE)

Or

Choose exactly 20 credits

Structural/Computational Stream -

These options MUST be chosen by those on the Structural/Computational Stream

EG-323	Finite Element Method	Dr W Harrison	TB1	10 (CORE)
EG-396	Computational Aerodynamics	Dr TN Croft	TB2	10 (CORE)

Or

Choose exactly 20 credits

Materials/Propulsion Stream -

These options MUST be chosen by those on the Materials/Propulsion Stream

<u>EG-381</u>	Fracture and Fatigue	Prof RE Johnston	TB1	10 (CORE)
<u>EGA301</u>	Composite Materials	Dr FA Korkees	TB2	10 (CORE)

Year 3 (FHEQ Level 6) 2025/26
Aerospace Engineering
MEng Aerospace Engineering with a Year Abroad[H406]

Compulsory Modules

Semester 1 Modules	Semester 2 Modules
EG-3081 Rotorcraft Theory 10 Credits Dr S Azizishirvanshahi CORE	EG-397 Propulsion 10 Credits Prof MT Whittaker CORE
EG-335 Gas Dynamics 10 Credits Prof WG Dettmer CORE	
EG-360 Dynamics 2 10 Credits Dr S Azizishirvanshahi CORE	
EG-3080 Engineering Management (Aero, EEE, Mech) 10 Credits Prof JC Arnold/Dr HKJ Jahanger/Dr EH Jewell/Mr JK Mcfadzean/Dr B Morgan/Ms LE Norman-Lewis/... CORE	
EG-353 Individual Engineering Project 30 Credits Dr AC Tappenden/Dr M Fazeli/Prof PJ Holliman CORE	
EGA302A Aerospace Engineering Design 3 20 Credits Mr JK Mcfadzean/Prof BJ Evans/Dr N Jamia/Dr AD Shaw/Dr NV Taylor CORE	
Total 120 Credits	

Optional Modules

Choose exactly 20 credits
Space Stream -

These options MUST be chosen by those on the Space Stream

EGA321	Satellite Systems	Dr X Zou	TB1	10 (CORE)
EGA341	Space Propulsion and Power Systems	Dr Z Jelic	TB2	10 (CORE)

Or

Choose exactly 20 credits
Structural/Computational Stream -

These options MUST be chosen by those on the Structural/Computational Stream

EG-323	Finite Element Method	Dr W Harrison	TB1	10 (CORE)
EG-396	Computational Aerodynamics	Dr TN Croft	TB2	10 (CORE)

Or

Choose exactly 20 credits

Materials/Propulsion Stream -

These options MUST be chosen by those on the Materials/Propulsion Stream

<u>EG-381</u>	Fracture and Fatigue	Prof RE Johnston	TB1	10 (CORE)
<u>EGA301</u>	Composite Materials	Dr FA Korkees	TB2	10 (CORE)

Year 3 (FHEQ Level 6) 2025/26

Aerospace Engineering BEng Aerospace Engineering[H405]

Compulsory Modules

Semester 1 Modules	Semester 2 Modules
EG-3081 Rotorcraft Theory 10 Credits Dr S Azizishirvanshahi CORE	EG-397 Propulsion 10 Credits Prof MT Whittaker CORE
EG-335 Gas Dynamics 10 Credits Prof WG Dettmer CORE	
EG-360 Dynamics 2 10 Credits Dr S Azizishirvanshahi CORE	
EG-3080 Engineering Management (Aero, EEE, Mech) 10 Credits Prof JC Arnold/Dr HKJ Jahanger/Dr EH Jewell/Mr JK Mcfadzean/Dr B Morgan/Ms LE Norman-Lewis/... CORE	
EG-353 Individual Engineering Project 30 Credits Dr AC Tappenden/Dr M Fazeli/Prof PJ Holliman CORE	
EGA302A Aerospace Engineering Design 3 20 Credits Mr JK Mcfadzean/Prof BJ Evans/Dr N Jamia/Dr AD Shaw/Dr NV Taylor CORE	
Total 120 Credits	

Optional Modules

Choose exactly 20 credits

Space Stream -

These options MUST be chosen by those on the Space Stream

EGA321	Satellite Systems	Dr X Zou	TB1	10 (CORE)
EGA341	Space Propulsion and Power Systems	Dr Z Jelic	TB2	10 (CORE)

Or

Choose exactly 20 credits

Structural/Computational Stream -

These options MUST be chosen by those on the Structural/Computational Stream

EG-323	Finite Element Method	Dr W Harrison	TB1	10 (CORE)
EG-396	Computational Aerodynamics	Dr TN Croft	TB2	10 (CORE)

Or

Choose exactly 20 credits

Materials/Propulsion Stream -

These options MUST be chosen by those on the Materials/Propulsion Stream

<u>EG-381</u>	Fracture and Fatigue	Prof RE Johnston	TB1	10 (CORE)
<u>EGA301</u>	Composite Materials	Dr FA Korkees	TB2	10 (CORE)

Year 3 (FHEQ Level 6) 2025/26
Aerospace Engineering
 BEng Aerospace Engineering with a Year in Industry[H402]

[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

Space Stream -

These options MUST be chosen by those on the Space Stream

<u>EGA321</u>	Satellite Systems	Dr X Zou	TB1	10 (CORE)
<u>EGA341</u>	Space Propulsion and Power Systems	Dr Z Jelic	TB2	10 (CORE)

Or

Choose exactly 20 credits

Structural/Computational Stream -

These options MUST be chosen by those on the Structural/Computational Stream

<u>EG-323</u>	Finite Element Method	Dr W Harrison	TB1	10 (CORE)
<u>EG-396</u>	Computational Aerodynamics	Dr TN Croft	TB2	10 (CORE)

Or

Choose exactly 20 credits

Materials/Propulsion Stream -

These options MUST by chosen by those on the Materials/Propulsion Stream

<u>EG-381</u>	Fracture and Fatigue	Prof RE Johnston	TB1	10 (CORE)
<u>EGA301</u>	Composite Materials	Dr FA Korkees	TB2	10 (CORE)

Year 3 (FHEQ Level 6) 2025/26
Aerospace Engineering
MEng Aerospace Engineering with a Year in Industry[H404]

Compulsory Modules

Semester 1 Modules	Semester 2 Modules
EG-3081 Rotorcraft Theory 10 Credits Dr S Azizishirvanshahi CORE	EG-397 Propulsion 10 Credits Prof MT Whittaker CORE
EG-335 Gas Dynamics 10 Credits Prof WG Dettmer CORE	
EG-360 Dynamics 2 10 Credits Dr S Azizishirvanshahi CORE	
EG-233 Placement Preparation: Engineering Industrial Year 0 Credits Dr SA Rolland/Dr V Samaras	
EG-3080 Engineering Management (Aero, EEE, Mech) 10 Credits Prof JC Arnold/Dr HKJ Jahanger/Dr EH Jewell/Mr JK Mcfadzean/Dr B Morgan/Ms LE Norman-Lewis/... CORE	
EG-353 Individual Engineering Project 30 Credits Dr AC Tappenden/Dr M Fazeli/Prof PJ Holliman CORE	
EGA302A Aerospace Engineering Design 3 20 Credits Mr JK Mcfadzean/Prof BJ Evans/Dr N Jamia/Dr AD Shaw/Dr NV Taylor CORE	
Total 120 Credits	

Optional Modules

Choose exactly 20 credits

Space Stream -

These options MUST be chosen by those on the Space Stream

EGA321	Satellite Systems	Dr X Zou	TB1	10 (CORE)
EGA341	Space Propulsion and Power Systems	Dr Z Jelic	TB2	10 (CORE)

Or

Choose exactly 20 credits

Structural/Computational Stream -

These options MUST be chosen by those on the Structural/Computational Stream

EG-323	Finite Element Method	Dr W Harrison	TB1	10 (CORE)
EG-396	Computational Aerodynamics	Dr TN Croft	TB2	10 (CORE)

Or

Choose exactly 20 credits

Materials/Propulsion Stream -

These options MUST be chosen by those on the Materials/Propulsion Stream

<u>EG-381</u>	Fracture and Fatigue	Prof RE Johnston	TB1	10 (CORE)
<u>EGA301</u>	Composite Materials	Dr FA Korkees	TB2	10 (CORE)

Year 3 (FHEQ Level 6) 2025/26
Aerospace Engineering
 BEng Aerospace Engineering with a Year Abroad[H401]

Compulsory Modules

Semester 1 Modules	Semester 2 Modules
EG-3081 Rotorcraft Theory 10 Credits Dr S Azizishirvanshahi CORE	EG-397 Propulsion 10 Credits Prof MT Whittaker CORE
EG-335 Gas Dynamics 10 Credits Prof WG Dettmer CORE	
EG-360 Dynamics 2 10 Credits Dr S Azizishirvanshahi CORE	
EG-3080 Engineering Management (Aero, EEE, Mech) 10 Credits Prof JC Arnold/Dr HKJ Jahanger/Dr EH Jewell/Mr JK Mcfadzean/Dr B Morgan/Ms LE Norman-Lewis/... CORE	
EG-353 Individual Engineering Project 30 Credits Dr AC Tappenden/Dr M Fazeli/Prof PJ Holliman CORE	
EGA302A Aerospace Engineering Design 3 20 Credits Mr JK Mcfadzean/Prof BJ Evans/Dr N Jamia/Dr AD Shaw/Dr NV Taylor CORE	
Total 120 Credits	

Optional Modules

Choose exactly 20 credits
 Space Stream -

These options MUST be chosen by those on the Space Stream

EGA321	Satellite Systems	Dr X Zou	TB1	10 (CORE)
EGA341	Space Propulsion and Power Systems	Dr Z Jelic	TB2	10 (CORE)

Or

Choose exactly 20 credits
 Structural/Computational Stream -

These options MUST be chosen by those on the Structural/Computational Stream

EG-323	Finite Element Method	Dr W Harrison	TB1	10 (CORE)
EG-396	Computational Aerodynamics	Dr TN Croft	TB2	10 (CORE)

Or

Choose exactly 20 credits

Materials/Propulsion Stream -

These options MUST be chosen by those on the Materials/Propulsion Stream

<u>EG-381</u>	Fracture and Fatigue	Prof RE Johnston	TB1	10 (CORE)
<u>EGA301</u>	Composite Materials	Dr FA Korkees	TB2	10 (CORE)

Year 3 (FHEQ Level 6) 2025/26

Aerospace Engineering BEng Aerospace Engineering[H400]

Compulsory Modules

Semester 1 Modules	Semester 2 Modules
EG-3081 Rotorcraft Theory 10 Credits Dr S Azizishirvanshahi CORE	EG-397 Propulsion 10 Credits Prof MT Whittaker CORE
EG-335 Gas Dynamics 10 Credits Prof WG Dettmer CORE	
EG-360 Dynamics 2 10 Credits Dr S Azizishirvanshahi CORE	
EG-3080 Engineering Management (Aero, EEE, Mech) 10 Credits Prof JC Arnold/Dr HKJ Jahanger/Dr EH Jewell/Mr JK Mcfadzean/Dr B Morgan/Ms LE Norman-Lewis/... CORE	
EG-353 Individual Engineering Project 30 Credits Dr AC Tappenden/Dr M Fazeli/Prof PJ Holliman CORE	
EGA302A Aerospace Engineering Design 3 20 Credits Mr JK Mcfadzean/Prof BJ Evans/Dr N Jamia/Dr AD Shaw/Dr NV Taylor CORE	
Total 120 Credits	

Optional Modules

Choose exactly 20 credits
Space Stream -

These options MUST be chosen by those on the Space Stream.

EGA321	Satellite Systems	Dr X Zou	TB1	10 (CORE)
EGA341	Space Propulsion and Power Systems	Dr Z Jelic	TB2	10 (CORE)

Or

Choose exactly 20 credits
Structural/Computational Stream -

These options MUST be chosen by those on the Structural/Computational Stream.

EG-323	Finite Element Method	Dr W Harrison	TB1	10 (CORE)
EG-396	Computational Aerodynamics	Dr TN Croft	TB2	10 (CORE)

Or

Choose exactly 20 credits

Materials/Propulsion Stream -

These options MUST be chosen by those on the Materials/Propulsion Stream.

<u>EG-381</u>	Fracture and Fatigue	Prof RE Johnston	TB1	10 (CORE)
<u>EGA301</u>	Composite Materials	Dr FA Korkees	TB2	10 (CORE)