Swansea University
Prifysgol Abertawe

FACULTY OF SCIENCE AND ENGINEERING

UNDERGRADUATESTUDENT HANDBOOK

YEAR 3 (FHEQ LEVEL 6)

MATHEMATICS AND COMPUTER SCIENCE
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

Mathematics Programme Director	Year 3 Coordinator
Dr Kristian Evans	Professor Grigory Garkusha

Year 3 (FHEQ Level 6) 2025/26
Mathematics and Computer Science
BSc Mathematics and Computer Science[GS08]

Compulsory Modules

Semester 1 Modules	Semester 2 Modules
CSC368 **Embedded Systems Design** **15 Credits** **Dr B Chaparro Rico**	**CSC318** **Cryptography and IT-Security** **15 Credits** **Dr E Neumann/Dr E Neumann/Dr H Ren**
MA-325 **Applied Algebra: Coding Theory** **15 Credits** **Prof T Brzezinski**	**MA-308** **Machine Learning** **15 Credits** **Dr AY Pachon**
MA-360 **Dissertation in Mathematics and Computer Science** **30 Credits** **Prof G Garkusha**	
Total 120 Credits	

Optional Modules

Choose exactly 15 credits

Select a module based on your chosen theme . CS313: Logic and AI Theme. MA-311: Modelling and Simulation Theme. MA-364: Data Science Theme.

CSC313	Critical Systems	Dr AG Setzer	TB1	15
MA-311	Partial Differential Equations	Prof E Lytvynov	TB1	15
MA-364	Markov Processes and Applications	Prof C Yuan	TB1	15

And

Choose exactly 15 credits

Select a module based on your chosen theme. CSC375: Logic and AI Theme. MA-365: Data Science Theme. MA-371: Modelling and Simulation Theme.

CSC375	Logic for Computer Science	Prof A Beckmann/Dr AM Pauly	TB2	15
MA-365	Risk and Survival Models	Prof DL Finkelshtein	TB2	15
MA-371	Biomathematics	Dr V Giunta	TB2	15

Year 3 (FHEQ Level 6) 2025/26
Mathematics and Computer Science
BSc Mathematics and Computer Science with a Year Abroad[GS14]
BSc Mathematics and Computer Science with a Year in Industry[GS12]

Compulsory Modules

Semester 1 Modules	Semester 2 Modules
CSC368 **Embedded Systems Design** **15 Credits** **Dr B Chaparro Rico**	**CSC318** **Cryptography and IT-Security** **15 Credits** **Dr E Neumann/Dr E Neumann/Dr H Ren**
MA-325 **Applied Algebra: Coding Theory** **15 Credits** **Prof T Brzezinski**	**MA-308** **Machine Learning** **15 Credits** **Dr AY Pachon**
MA-360 **Dissertation in Mathematics and Computer Science** **30 Credits** **Prof G Garkusha**	
Total 120 Credits	

Optional Modules

Choose exactly 15 credits

Select a module based on your chosen theme. CSC313: Logic and AI Theme. MA-311: Modelling and Simulation Theme. MA-364: Data Science Theme.

CSC313	Critical Systems	Dr AG Setzer	TB1	15
MA-311	Partial Differential Equations	Prof E Lytvynov	TB1	15
MA-364	Markov Processes and Applications	Prof C Yuan	TB1	15

And

Choose exactly 15 credits

Select a module based on your chosen theme. CSC375: Logic and AI Theme. MA-365: Data Science Theme. MA-371: Modelling and Simulation Theme.

CSC375	Logic for Computer Science	Prof A Beckmann/Dr AM Pauly	TB2	15
MA-365	Risk and Survival Models	Prof DL Finkelshtein	TB2	15
MA-371	Biomathematics	Dr V Giunta	TB2	15

Year 3 (FHEQ Level 6) 2025/26
Mathematics and Computer Science
BSc Mathematics and Computer Science[GS10]

Compulsory Modules

Semester 1 Modules	Semester 2 Modules
CSC368 **Embedded Systems Design** **15 Credits** **Dr B Chaparro Rico**	**CSC318** **Cryptography and IT-Security** **15 Credits** **Dr E Neumann/Dr E Neumann/Dr H Ren**
MA-325 **Applied Algebra: Coding Theory** **15 Credits** **Prof T Brzezinski**	**MA-308** **Machine Learning** **15 Credits** **Dr AY Pachon**
MA-360 **Dissertation in Mathematics and Computer Science** **30 Credits** **Prof G Garkusha**	
Total 120 Credits	

Optional Modules

Choose exactly 15 credits

CSC313: Logic and AI Theme. MA-311: Modelling and Simulation Theme. MA-364: Date Science Theme.

CSC313	Critical Systems	Dr AG Setzer	TB1	15
MA-311	Partial Differential Equations	Prof E Lytvynov	TB1	15
MA-364	Markov Processes and Applications	Prof C Yuan	TB1	15

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CSC375	Logic for Computer Science	Prof A Beckmann/Dr AM Pauly	TB2	15
MA-365	Risk and Survival Models	Prof DL Finkelshtein	TB2	15
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