BSc (Hons) in Applied Software Engineering

Swansea University
Prifysgol Abertawe

Course Handbook

2024/2025

technocamps

institute of CODING in wales

difficilia quae pulchra

things that are excellent are difficult

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 Programme Director directly if you require further information.

– May 6, 2025.

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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 - 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

Contacts

Faculty of Science and Engineering	
Pro-Vice Chancellor and Executive Dean	Professor David Smith
Head of Operations	Ruth Buntin
Associate Dean - Education	Dr Laura Roberts
School of Mathematics and Computer Science	
Head of School	Professor Elaine Crooks e.c.m.crooks@swansea.ac.uk
School Education Lead	Dr Neal Harman n.a.harman@swansea.ac.uk
Head of Computer Science	Professor Jiaxiang Zhang jiaxiang.zhang@swansea.ac.uk
Computer Science Programme Director	Dr Liam O'Reilly l.p.oreilly@swansea.ac.uk
Degree Apprenticeship Programme Director	Casey Hopkins c.l.hopkins@swansea.ac.uk
Year Coordinators	Year 1 - Filippos Pantekis Year 2 - Ben Lloyd-Roberts Year 3 - Olga Petrovska

University Information

Health and Safety
Owing to Fire and Health & Safety Regulations (and from the general considerations of security), the hours of entry to certain buildings on the campus are restricted. Outside these hours, entry can only be gained on the written permission of the Head of School or other authority concerned.

Emergency Procedures
In the event of a medical (or other) emergency call 333 immediately on a University landline or ask a member of staff to do so. If you are unsure if 333 has been called, call 333 again. For all emergency calls on University property dial 333 on a University phone. This helps the University to speed the arrival of the Emergency Services.

In the event of a fire:

1. Raise the alarm at once by breaking the glass of the nearest fire alarm call point.

2. Send the first available person to telephone 333 and give the location of the fire.

3. If appropriate, call for assistance and attack the fire with the correct extinguisher.

4. If the fire should get out of control, or your escape is threatened, leave the building at once, closing doors and windows as you go.

If you hear the fire alarm:

1. Leave the building immediately, closing all doors behind you: use the nearest available exit; do not stop to collect personal belongings; do not use the lifts; and do not re-enter the building.

2. When clear of the building proceed at once to the assembly area for that building (as indicated on the blue Fire Action signs around the building).

Data Protection
The University's procedures comply with the principles of the Data Protection Act 2018. The responsibilities of students in relation to the provision of personal data can be found on the Swansea University website. Students as data subjects have a right to request from the University a copy of their own personal data. A standard form must be completed. The University's registration number with the Information Commissioner is Z6102454.

Assessment and Feedback
The university operates a strict policy with regards to submission deadlines. Late submissions will not be accepted and students will receive 0% for any assignments which are not submitted before the deadline. The university adheres to a policy of providing feedback on all submissions within three weeks of the submission deadline.

Transcripts and Diploma Supplements
You can expect to receive an academic transcript at the end of your studies at Swansea which details the modules you pursued and the marks obtained.

Immigration requirements
As part of the course enrolment process all students will be required to confirm their identity and right to study at Swansea University. International and non-UK/Irish students holding a non-settlement, temporary UK visa (i.e. one that has an expiry date) must ensure they have the correct immigration permissions to work and study for the duration of the course. The BSc course involves work-based learning, therefore immigration permissions must include the ability to work full time. Sponsorship under the Student Route will not be possible because the course structure and delivery does not meet the necessary UKVI criteria for such sponsorship.

The Structure of the Programme

The BSc in Applied Software Engineering is a 3-year programme where each year consists of three trimesters. Lectures and labs are delivered on campus every Wednesday from 1pm-8pm.

Taught Modules

Each trimester consists of two taught modules each worth 20 credits. Each taught module is typically assessed with a combination of lab work, course-work and two class tests (a Mid-Term Test and End-Term Test). The pass mark for every module is 40%. At the end of each trimester, students will be offered the opportunity to redeem any failed modules (i.e., a module with a mark of less than 40%) from the current trimester; modules with a redeemed failure will have the mark capped at 40%.

At the end of each trimester, any student who has a non-compensated failure in any module (i.e., less than 30% in any 1st- or 2nd-year module), or has accumulated more than 30 credits of failed modules during the academic year, will be required to withdraw from the programme.

Work-Based Modules

In addition to the six taught modules, a Pass/Fail Work-Based Portfolio module runs throughout each of the first two academic years. These are core modules and must be passed in order to proceed to the following year. To pass the module, we will calculate the overall mark from the Work-Based Portfolio tasks. Each Work-Based Portfolio module consists of a significant task from each of the taught modules where the knowledge acquired from that taught module is put into practice in the workplace. The work-based tasks are completed in the students own time.

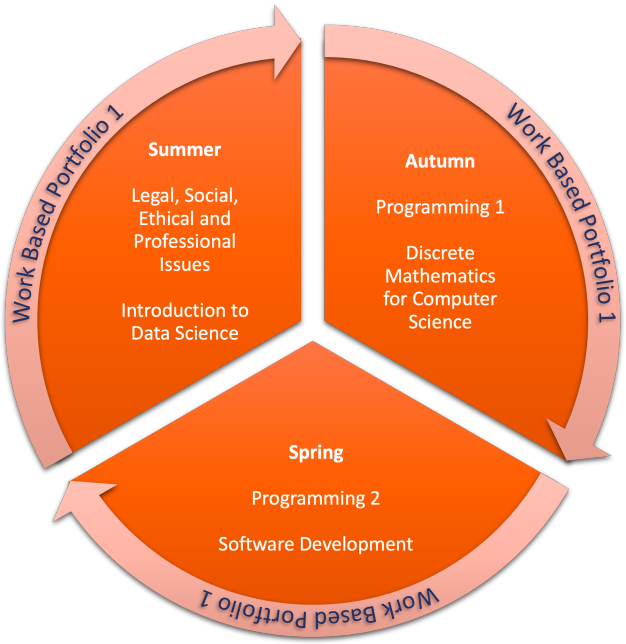
In the final year, a 40 credit Work-Based Project module runs through the whole academic year. This is also a core module, and contains a taught project management component followed by each student developing the specification, development and implementation of a substantial software project.

Overview

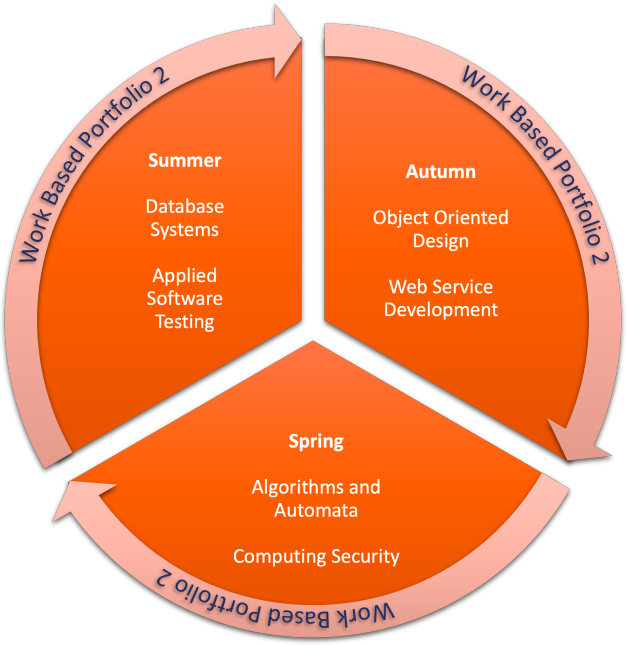
A visual overview of the structure of the course is given below. Details of each of the modules can be found by following the links embedded in the modules table at the end of this handbook.

Curriculum for First Years starting in 25/26

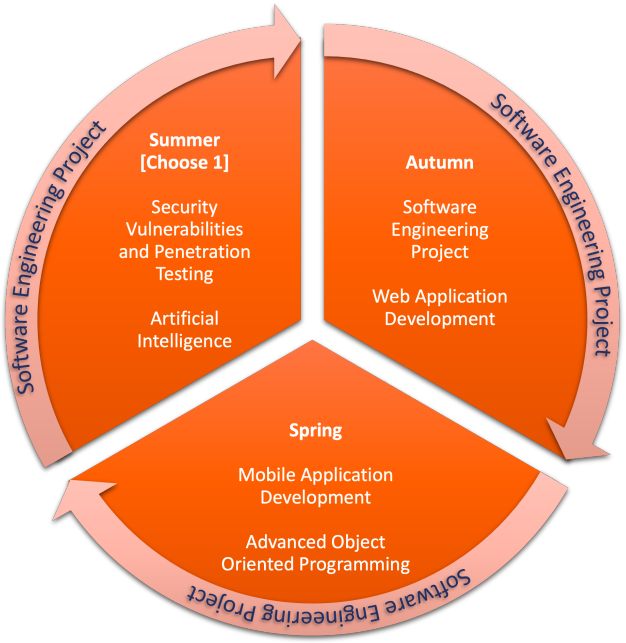
Year 1



Year 2



Year 3



First Year Modules

Module Code	Title	Term	Credits
CSF1000	[Core] Work Based Portfolio	Year	0
CSF1701	Programming I	TB1	20
CSF1906	Discrete Mathematics for Computer Science	TB1	20
CSF1702	Programming II	TB2	20
CSF1704	Software Development	TB2	20
CSF1465	Introduction to Data Science	TB3	20
CSF1007	Legal, Social, Ethical and Professional Issues	TB3	20

Second Year Modules

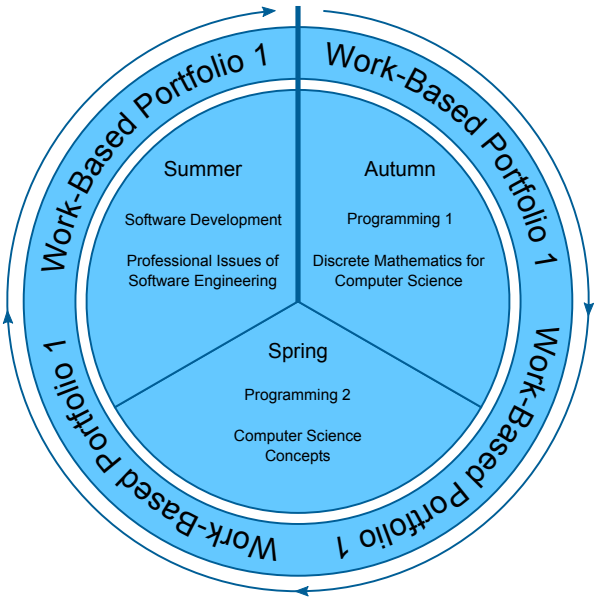
Module Code	Title	Term	Credits
CSF2000	[Core] Work Based Portfolio	Year	0
CSF2702	Object Oriented Programming	TB1	20
CSF2753	Web Service Development	TB1	20
CSF2906	Algorithms & Automata	TB2	20
CSF2807	Computer Security	TB2	20
CSF2703	Database Systems	TB3	20
CSF2709	Applied Software Testing	TB3	20

Third Year Modules

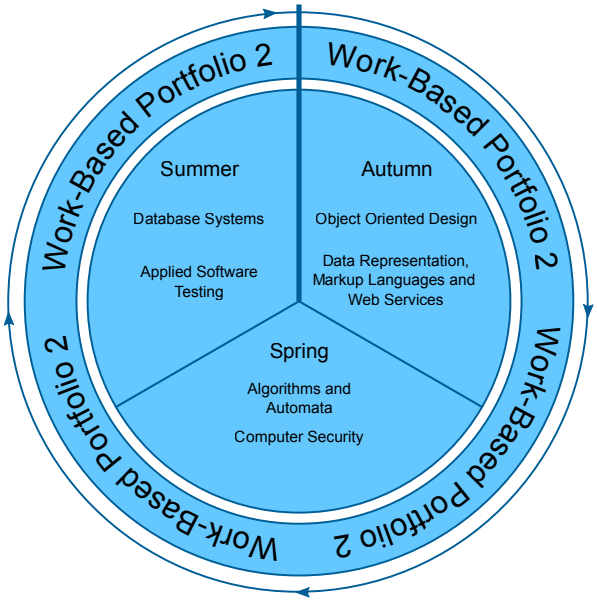
Module Code	Title	Term	Credits
CSF3000	[Core] Software Engineering Project	Year	40
CSF3704	Web Application Development	TB1	20
CSF3706	Mobile Application Development	TB2	20
CSF3707	Advanced Object Oriented Programming	TB2	20
CSF3425	[Optional] Artificial Intelligence	TB3	20
CSF3828	[Optional] Security Vulnerabilities & Penetration Testing	TB3	20

Curriculum for students who started prior to 25/26

Year 1



Year 2



Year 3

Second Year Modules

Module Code	Title	Term	Credits
CSF200	Work Based Portfolio	Year	15
CSF202	Object Oriented Programming	TB1	15
CSF203	Database Systems	TB3	15
CSF205	Data Representation, Markup Languages & Web Services	TB1	15
CSF206	Algorithms & Automata	TB2	15
CSF207	Computer Security	TB2	15
CSF209	Applied Software Testing	TB3	15

Third Year Modules

Module Code	Title	Term	Credits
CSF300	Project Implementation and Dissertation	Year	15
CSF301	Project Specification and Development	Year	15
CSF302	Project Planning and Management	TB1	15
CSF304	Web Application Development	TB1	15
CSF306	Mobile Application Development	TB1	15
CSF307	Advanced Object Oriented Programming	TB2	15
CSF308	Data Communications and Networks	TB2	15
CSF325	[Optional] Artificial Intelligence	TB3	15
CSF328	[Optional] Security Vulnerabilities & Penetration Testing	TB3	15

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www.swansea.ac.uk/undergraduate/courses/science/computer-science/bsc-applied-software-engineering/

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