

BSC (HONS) COMPUTER SCIENCE (SOFTWARE ENTREPRENEURSHIP)

Overview

NFQ Level 8, Major Award

Students enter Second Science Computer - Software Entrepreneurship from the First Science Area of Study: Computer Science (CK401) (<https://ucc-ie-public.courseleaf.com/programmes/bscsf/>) provided they have passed First Science.

Students may opt for a Single Honours Degree in **Computer Science** or a Single Honours Degree in **Computer Science (Software Entrepreneurship)**.

In each of these degree programmes, there is a **Work Placement** module. The Third University Examinations are held early and the Work Placement module is part of the final year assessment. The normal duration for Work Placement is 6 months, (CS3300), commencing in early April of the Third Year, as part of a four year degree programme. In some circumstances a 12 month Work Placement (CS3301) may be approved by the College as part of an extended Third Year, for students who are offered such positions by employers. A student pursuing a 12 month Work Placement will be allowed a waiver of part of the registration fee for the extended period.

Progression to Single Honours Degrees

Admission to a subsequent year of the **Single Honours** programme requires a Pass overall in the current year's examination (details are available in the Marks and Standards Book).

Admission to the **Computer Science (Software Entrepreneurship)** programme in Second Science has specific requirements. A student wishing to pursue this degree must obtain a Pass in Computer Science at the First University Examination and at least 40% in Economics in First Science.

An overview of the programme structures is shown in Table 4(a).

Table 4(a) Computer Science

First Science	Second Science	Third Science	Fourth Science
CK401	BSc Single Honours Computer Science	BSc Single Honours Computer Science	BSc Single Honours Computer Science
	CS (50 credits) + CS/FR/HS/MA (10 credits)	CS (60 credits)	CS (60 credits)
	BSc Single Honours Computer Science (Software Entrepreneurship)	BSc Single Honours Computer Science (Software Entrepreneurship)	BSc Single Honours Computer Science (Software Entrepreneurship)
	CS (25 credits) + EC (35 credits)	CS (40 credits) + EC (20 credits)	CS (35 credits) + EC (25 credits)

BSc Ordinary Degree - NFQ Level 7, Major Award

Students who pass Third Year may choose not to proceed to Fourth Year and may opt instead to be conferred with a BSc Ordinary Degree (<https://ucc-ie-public.courseleaf.com/programmes/bscpas/>).

Programme Requirements

For information about modules, module choice, options and credit weightings, please go to Programme Requirements (p. 1).

Programme Requirements

Code	Title	Credits
Year 1		
<i>Single Honours</i>		
Students take 60 credits as follows – all listed core modules (50 credits) and 10 credits of elective modules:		
<i>Core Modules</i>		
CS1106	Introduction to Relational Databases	5
CS1110	Computer Hardware Organization	5
CS1111	Systems Organisation	5
CS1112	Foundations of Computer Science I	5
CS1113	Foundations of Computer Science II	5
CS1115	Web Development 1	5
CS1116	Web Development 2	5
CS1117	Introduction to Programming	15
<i>Elective Modules</i>		
Students take modules to the value of 10 credits from the following: 10		
CH1001	Chinese Language (Mandarin) I	
CS1130	Irish Language for Computer Science I	
plus CS1131	plus Irish Language for Computer Science II	
EC1202	Economic Reasoning for Business	
plus EC1203	plus Macroeconomic Context and Business	
FR0105	Introduction to French : Complete Beginners	
FR1005	French for Near Beginners	
FR1105	Threshold French	
plus FR1107	plus French for Reading Purposes I	
GE0005	German Language (CEFR-Level A2.1)	
plus GE0008	plus German Language (CEFR-Level A2.2)	
HS0028	Spanish Language (Beginner Level)	
IT1102	Non-Beginners' Written and Spoken Italian	
IT1109	Introduction to Written and Spoken Italian	
MA1001	Calculus for Science Part 1	
MA1002	Calculus for Science Part 2 ¹	
MA1059	Calculus	
MA1060	Introduction to Analysis	
Year 2		
Students take 60 credits as follows:		
<i>Core Modules</i>		
<i>Computer Science</i>		
CS2208	Information Storage and Management I	5
CS2209	Information Storage and Management II	5
CS2513	Intermediate Programming	5
CS2514	Introduction to Java	5
CS2515	Algorithms and Data Structures I	5
<i>Economics</i>		

EC2115	Introduction to Mathematical Economic Analysis	5
EC2116	Introduction to Statistical Economic Analysis	5
EC2119	Economic Data Collection and Presentation Skills	5
EC2120	Report Writing and Oral Presentation Skills	5
EC2200	Economics of Managerial Decision Making	5
EC2215	Macroeconomic Growth and Competitiveness	5
EC3008	Financial Strategy	5

Year 3

Students take **60** credits as follows:

*Core Modules**Computer Science*

CS3300	Work Placement	10
or CS3301	Work Placement	
CS3305	Team Software Project	10
CS3306	Workplace Technology and Skills	10
CS3318	Advanced Programming with Java	5
CS3500	Software Engineering	5

Economics

EC3135	Health Economics: The Role of Public Policy	5
EC3155	Survey Methods	5
EC3208	Economics and Markets after the Crisis	5
EC3156	Environmental Economics: The Problem of Climate Change	5

Year 4

Students take **60** credits as follows – all listed core modules (**40** credits) and **20** credits of elective modules:

Core Modules

CS4503	Software Enterprise Project	15
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Economics

EC3215	Corporate Strategy and International Business	5
EC3216	Economics of Strategic Behaviour	5
EC3127	Economics and the Labour Market	5
EC3119	Capital Markets and Asset Valuation	5
EC4215	Business Econometrics 1	5

Elective Modules

Students take modules¹ to the value of **20** credits from the following: 20

CS4092	Special Topics in Computing I (5)	
CS4093	Special Topics in Computing II (5)	
CS4405	Multimedia Compression and Delivery (5)	
CS4507	Advanced Software Engineering (5)	
CS4614	Introductory Network Security (5)	
CS4615	Computer Systems Security (5)	
CS4620	Functional Programming I (5)	
CS4626	Constraint Programming and Optimisation (5)	

Total Credits **240**

¹ Note that not all elective modules will be offered each year.

Examinations

Full details and regulations governing Examinations for each programme will be contained in the *Marks and Standards Book* and for each module in the *Book of Modules*.

Programme Learning Outcomes**Programme Learning Outcomes for BSc in Computer Science (Software Entrepreneurship) (NFQ Level 8, Major Award)**

On successful completion of this programme, students should be able to:

- Formulate and solve problems using the mathematical principles which underlie electronic computation;
- Use a range of computing technologies and programming languages to implement appropriate computational approaches to real-world applications;
- Demonstrate familiarity with a range of Software Engineering methodologies, sufficient to choose the most appropriate methodology for managing a software development project, taking into account the overall context of the application and its life-cycle environment;
- Think analytically, critically and strategically about economic issues;
- Demonstrate the acquisition of autonomous study skills and the adoption of an investigative approach to tackle economic problems;
- Construct logical arguments, communicate arguments clearly in writing, and appreciate, evaluate and respond to potentially conflicting interpretations of economic phenomena;
- Apply critical, analytical and research skills, and problem-solving skills that are valuable for a wide range of future careers, further study, and lifetime learning.