BSC (HONS) CHEMISTRY WITH FORENSIC SCIENCE

Overview

NFQ Level 8, Major Award

Eligibility

Students may opt to enter the Second Science Chemistry with Forensic Science programme from the following First Science areas of study: Biological and Chemical Sciences (CK402 entry) (https://ucc-ie-public.courseleaf.com/programmes/bscbf/) and Chemical Sciences (CK406 entry) (https://ucc-ie-public.courseleaf.com/programmes/bsccm/), provided they have passed 1st Science and passed the CM1200 and CM1201. There are twenty places available each year.

Quotas

Students from CK402 or CK406 will be offered places in order of merit based on their First Year Examination results in Chemistry. In filling the quotas, places will be given to students passing the First University Examination in Science at the Summer Examination in the first year of registration for the First University Examination in Science, and in order of merit of marks in CM1200 and CM1201 obtained thereat. Remaining places, if any, will be filled in order of merit without distinction as to when the examination was completed. The decision as to the filling of such remaining places will be made after the results of the Autumn Supplemental Examination are known.

Second Year - Chemistry with Forensic Science

Optional Module - CM0004 Introduction to Validation (5 credits)

Students interested in taking this optional module must note their interest to the module co-ordinator in the first week of Semester 1. Places are limited and will be allocated based on results obtained in First Year and subject to the approval of the Programme Co-ordinator. CM0004 is not included for progression to subsequent year and is not counted toward the final degree award. The result obtained in CM0004 will be recorded on the student's transcript.

Third Year - Chemistry with Forensic Science

Exit Award

Students who have passed 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/) (NFQ Level 7).

Fourth Year - Chemistry with Forensic Science

Optional Module - CM0005 Validation Science (5 credits)

Students interested in taking this optional module must note their interest to the module co-ordinator in the first week of Semester 2. Students who have passed the prerequisite CM0004 will be allocated a place, subject to the approval of the Programme Co-ordinator. CM0005 is not included for progression to subsequent year and is not counted toward the final degree award. The result obtained in CM0005 will be recorded on the student's transcript.

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		**60**
CK402 (https://ucc-ie-public.courseleaf.com/programmes/bscbf/)		
or		
CK406 (https://ucc-ie-public.courseleaf.com/programmes/bsccm/)		
Year 2		
Students take **60** credits as follows:		
Core Modules		
Chemistry		
CM2001	Main Group and Transition Element Chemistry	5
CM2002	Fundamentals of Organic Chemistry	5
CM2003	Energetics and Kinetics	5
CM2004	States of Matter	5
CM2005	Structures and Reactions of Main Group Compounds	5
CM2006	Aromatics, Carbonyls and Alkenes	5
CM2007	Spectroscopy	5
CM2008	Structure, Bonding and Quantum Mechanics	5
Forensic Science		
CM2009	Introduction to Forensic Science	5
Biochemistry and Molecular Biology		
BC2001	Biomolecules	5
ML2901	Introductory Molecular Biology	5
Genetics		
GN2001	Current Perspectives in Genetics	5
Optional Module		
CM0004	Introduction to Validation (5)	
Year 3		
Students take **60** credits as follows:		
Core Modules		
Chemistry		
CM3001	Organic Synthesis, Intermediates and Heterocycles	5
CM3004	Structure and Reactivity of Organic Compounds	5
CM3016	Molecules and Radiation	5
CM3017	Reaction Kinetics and Electrochemistry	5
CM3021	Inorganic Chemistry	10
CM3024	Analytical Chemistry	10
CM3102	Introduction to Pharmaceutical Chemistry	5
Toxicology		
PT3002	Introduction to Toxicology	5
Forensic Science		
CM3108	Forensic Analysis	5
Forensic Psychology		
AP3121	Forensic Psychology	5
Year 4		
Students take **60** credits as follows - all listed core modules (**50** credits) and **10** credits of Research:		
Core Modules		
Chemistry		
CM4017	Advanced Inorganic Chemistry Part 1	5
CM4018	Advanced Inorganic Chemistry Part 2	5

CM4019	Lasers, Photochemistry & Spectroscopy	5
CM4020	Interfaces & Modelling	5
CM4108	Advanced Pharmaceutical Chemistry	5
CM4026	Advanced Analytical Chemistry Part 1	5
CM4027	Advanced Analytical Chemistry Part 2	5
Forensic Science		
CM4100	Advanced Methods of Forensic Science	5
Forensic Genetics		
BC3011	Forensic Genetics and Molecular Biology	5
Pathology		
PM3006	Forensic and Legal Medicine	5
Research Project		
CM4210	Chemistry with Forensic Science Research Project	10
Optional		
CM0005	Validation Science (5)	
Total Credits		**240**

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 Chemistry with Forensic Science (NFQ Level 8, Major Award)

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

- Identify, formulate, analyse and solve chemistry and forensic science problems;
- Outline fundamental aspects of chemistry and forensic science;
- Design and carry out an experiment to test a hypothesis or theory in chemistry or forensic science;
- Prepare written laboratory reports that provide a description of the experiment, explain the experiment and reasoning clearly, and provide an appropriate conclusion;
- Communicate effectively with the chemistry and forensic science communities;
- Engage with all stages of forensic investigation, collect, analyse, interpret and present the evidence.