BSC (HONS) CHEMISTRY

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 - all listed core modules (**40** credits) and **20** credits of elective modules:		
Core Modules		
Chemistry		
CM2001	Main Group and Transition Element Chemistry	5
CM2002	Intermediate Stereochemistry, Reactivity and Mechanisms in 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
Elective Modules		
Students take modules to the value of **20** credits from the following:		20
Biochemistry		
BC2001	Biomolecules (5)	
BC2002	Principles of Metabolic Pathways (5)	
Molecular Biology		
ML2901	Introductory Molecular Biology (5)	
Mathematics		
MA1012	Mathematical Methods II (5) [1]	
MA2071	Multivariable Calculus (5) [2]	
Physics		
PY3011	Environmental Physics (5)	
Statistics		
ST2001	Introduction to Biostatistics (5)	
Forensic Science		
CM2009	Introduction to Forensic Science (5) [3]	
Optional Module		
CM0004	Introduction to Validation (5) [4]	
Year 3		
Students take **60** credits as follows:		
Core Modules		
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
CM3025	Materials Chemistry	5
CM3028	Scientific Communication and Information Literacy Skills	5
CM3102	Introduction to Pharmaceutical Chemistry	5
CM3104	Environmental Chemistry and Analysis	5
Optional Modules		
CM0005	Validation Science (5) [5]	
CM4211	Work Placement for Chemistry Students (5) [6]	
Year 4		
Students take **60** credits as follows – all listed core modules (**55** credits) and **5** credits of elective modules:		
Core Modules		
CM4001	Advanced Organic Synthesis and Reactivity	5
CM4017	Advanced Inorganic Chemistry Part 1	5
CM4018	Advanced Inorganic Chemistry Part 2	5
CM4019	Lasers, Photochemistry & Spectroscopy	5
CM4020	Interfaces & Modelling	5
CM4026	Advanced Analytical Chemistry Part 1	5
CM4027	Advanced Analytical Chemistry Part 2	5
CM4103	Heterocycles, Biosynthesis and Asymmetric Synthesis	5
CM4206	Chemistry Research Projects	15
Elective Modules		
Students take **5** credits from the following:		5
CM4025	Advanced Nano Materials (5)	
CM4108	Advanced Pharmaceutical Chemistry (5)	
CM4112	Atmospheric Chemistry and Air Pollution (5)	
Total Credits		**240**

1. Students who took MA1012 in First Year cannot take this module again in Second Year.
2. MA2071 is available only to students who have taken MA1011 and MA1012 in First Year.
3. CM2009 is available only to students who took MA1011 Mathematical Methods I and MA1012 in First Year and subsequently cannot make up the required 20 credits from the above options.
4. 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.
5. 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.
6. Students interested in taking this optional module must secure a work placement relevant to the discipline, subject to the approval of the School of Chemistry. The work placement is to be undertaken in June-August (minimum four weeks) following the Third Year Summer Examination. CM4211 Work Placement for Chemistry Students is not included for progression to the subsequent year and is not counted towards the final degree award. The result obtained in CM4211 Work

Placement for Chemistry Students will be recorded on the student's transcript.

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*.