



APPROVED

Awards	
Ordinary Bachelor Degree	
Mode of Delivery:	Full Time
No. of Semesters :	6
NFQ Level:	7
Programme Credits:	180
Language of Instruction:	English
Department:	Science and Health

Semester Schedules

Stage 1 / Semester 1

Elective Regulation

1. Students must achieve a minimum grade (35%) in both the practical/CA and Final Examination in the following modules: Fundamental Biology, Chemistry 1, Physics 1. 2. Students must achieve a minimum grade (35%) in both the practical and CA in the following modules: Quantitative Methods 1

Mandatory	
Module Code	Module Title
ZBIO C1101	Fundamental Biology
ZCHE C1101	Chemistry 1
ZPHY C1101	Physics 1
ZLAB C1101	Laboratory Science
ZMTS C1101	Quantitative Methods 1

Stage 1 / Semester 2

Elective Regulation

1. Students must achieve a minimum grade (35%) in both the practical/CA and Final Examination in the following modules: Chemistry 2, Quantitative Methods 2, Animal and Human Biology. 2. Students must achieve a minimum grade (35%) in both the practical and CA in the following modules: Physics 2 3. Current concepts in Science is an elective. Brewing and Distilling students will do a comparable module (Introduction to Brewing Studies) and Science Students will do Science module(Introduction to BioScience)

Mandatory	
Module Code	Module Title
ZBIO C1102	Animal and Human Biology
ZCHE C1102	Chemistry 2
ZPHY C1102	Physics 2
ZMTS C1102	Quantitative Methods 2
ZSCI C1101	Current Concepts in Science

Stage 2 / Semester 1

Elective Regulation

1. Students must achieve a minimum grade (35%) in both the practical/CA and Final Examination in the following modules: Instrumentation, Analytical Inorganic Chemistry, 2. Students must achieve a minimum grade (35%) in both the practical and CA in the following modules: Quantitative Methods and Quality Control, Organic and Physical Chemistry

Mandatory	
Module Code	Module Title
ZINS C2101	Instrumentation
ZQUA C2101	Quantitative Methods and Quality Control 1
ZANA C2101	Analytical Inorganic Chemistry 1
ZCHE C2103	Organic and Physical Chemistry 1

Stage 2 / Semester 2

Elective Regulation

1. Students must achieve a minimum grade (35%) in both the practical/CA and Final Examination in the following modules: Organic and Physical Chemistry 2 2. Students must achieve a minimum grade (35%) in both the practical and CA in the following modules: Quantitative Methods and Quality Control 2, Analytical Inorganic Chemistry 2, Pharmaceutical Science 3. Students must achieve a minimum grade (35%) in both the CA and Final Examination in the following modules: Biomolecules 4. Students may apply to EXIT from the programme with a Higher Certificate in Science in Applied Chemistry (Embedded Exit Award), provided they have achieved the required learning outcomes for the level 6 award and have accumulated 120 credits. IT Carlow academic regulations apply.

Mandatory	
Module Code	Module Title
ZPHA C2102	Pharmaceutical Science
ZQUA C2102	Quantitative Methods and Quality Control 2
ZANA C2102	Analytical Inorganic Chemistry 2
ZCHE C2104	Organic and Physical Chemistry 2
ZCHE C2105	Biomolecules

Stage 3 / Semester 1

Elective Regulation

1. Students must achieve a minimum grade (35%) in the Practical/CA and Final Examination in the following modules: Physical Chemistry, Spectrochemical Methods, Quality Management, Experimental Design and Data Analysis. 2. Students must achieve a minimum grade (35%) in the CA and Practical in the following modules: Sampling and Separation Science

Mandatory	
Module Code	Module Title
ZSCI C3100	Sampling and Separation Science 1
ZCHE C3104	Spectrochemical Methods
ZCHE C3103	Physical Chemistry
ZQUA C3103	Quality Management, Experimental Design and Data Analysis

Stage 3 / Semester 2

Elective Regulation

1. Analytical Project and Workplace planning is delivered as a year-long module with credits awarded at the end of Semester 6 2. Students must achieve a minimum grade (35%) in the Practical/CA and Final Examination in the following modules: Sampling and Separation Science 2, Microbiology for Pharmaceuticals, Pharmaceutical Processing and Process Analytical Technologies. 3. Students must achieve a minimum grade (35%) in the CA and Practical in the following modules: Environmental Science 4. Students must achieve a minimum grade (35%) in the CA and Project in the following modules: Analytical Project and Workplace Planning.

Mandatory	
Module Code	Module Title
ZSCI C3101	Sampling and Separation Science 2
ZPHA C3108	Microbiology for Pharmaceuticals
ZENV C3100	Environmental Science
ZPHA C3100	Pharmaceutical Processing and Process Analytical Technologies
ZANA C3100	Analytical Project and Workplace Planning