



APPROVED

Awards	
Honours Bachelor Degree	
Mode of Delivery:	Full Time
No. of Semesters :	8
NFQ Level:	8
Programme Credits:	240
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	<a href="#">Fundamental Biology</a>
ZCHE C1101	<a href="#">Chemistry 1</a>
ZLAB C1101	<a href="#">Laboratory Science</a>
ZPHY C1101	<a href="#">Physics 1</a>
ZMTS C1101	<a href="#">Quantitative Methods 1</a>

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	<a href="#">Animal and Human Biology</a>
ZCHE C1102	<a href="#">Chemistry 2</a>
ZPHY C1102	<a href="#">Physics 2</a>
ZMTS C1102	<a href="#">Quantitative Methods 2</a>
ZSCI C1101	<a href="#">Current Concepts in Science</a>

## 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	<a href="#">Instrumentation</a>
ZQUA C2101	<a href="#">Quantitative Methods and Quality Control 1</a>
ZANA C2101	<a href="#">Analytical Inorganic Chemistry 1</a>
ZCHE C2103	<a href="#">Organic and Physical Chemistry 1</a>

## 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
ZQUA C2102	<a href="#">Quantitative Methods and Quality Control 2</a>
ZANA C2102	<a href="#">Analytical Inorganic Chemistry 2</a>
ZCHE C2104	<a href="#">Organic and Physical Chemistry 2</a>
ZCHE C2105	<a href="#">Biomolecules</a>
ZPHA C2102	<a href="#">Pharmaceutical Science</a>

Stage 2 Exit Only Award : Higher Certificate

## 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
ZCHE C3103	<a href="#">Physical Chemistry</a>
ZCHE C3104	<a href="#">Spectrochemical Methods</a>
ZSCI C3100	<a href="#">Sampling and Separation Science 1</a>
ZQUA C3103	<a href="#">Quality Management, Experimental Design and Data Analysis</a>

## 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 Pharmaceutics, 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. 5. Students may apply to EXIT from the programme with a Bachelor of Science in Analytical Science (Embedded Exit Award), provided they have achieved the required learning outcomes for the level 7 award and have accumulated 180 credits. IT Carlow academic regulations apply.

Mandatory	
Module Code	Module Title
ZENV C3100	<a href="#">Environmental Science</a>
ZSCI C3101	<a href="#">Sampling and Separation Science 2</a>
ZPHA C3108	<a href="#">Microbiology for Pharmaceutics</a>
ZANA C3100	<a href="#">Analytical Project and Workplace Planning</a>
ZPHA C3100	<a href="#">Pharmaceutical Processing and Process Analytical Technologies</a>

Stage 3 Exit Only Award : Ordinary Bachelor Degree

Stage 4 / Semester 1

Elective Regulation

1. Students must achieve a minimum grade (35%) in the Practical/CA and Final Examination in the following modules: Assay Development, Pharmaceutical Formulation, Drug Stability

Mandatory	
Module Code	Module Title
ZSCI C4105	<a href="#">Assay Development</a>
ZPHA C4104	<a href="#">Pharmaceutical Formulation</a>
ZPHA C4105	<a href="#">Drug Stability</a>



Stage 4 / Semester 2

Elective Regulation

1. Research Project in Pharmaceutics is delivered as a year-long module with credits awarded at the end of Semester 8 2. Students must achieve a minimum grade (35%) in the CA and Final Examination in the following modules: Regulatory Affairs for Pharmaceutics 3. Students must achieve a minimum grade (35%) in the CA/Practical and Final examination in the following module: Advanced Data Analysis and Modelling

Mandatory	
Module Code	Module Title
ZDAT C4100	<a href="#">Advanced Data Analysis and Modelling</a>
ZPRO C4101	<a href="#">Research Project in Pharmaceutics</a>
ZWKP C4103	<a href="#">Work Placement Pharmaceutics</a>
ZLAW C4100	<a href="#">Regulatory Affairs for Pharmaceutics</a>

Stage 4 Exit Only Award : Honours Bachelor Degree