

Module Title:	Research Project in Bioscience/Biopharmaceuticals
Language of Instruction:	English
Credits:	10
NFQ Level:	8
Module Delivered In	1 programme(s)
Teaching & Learning Strategies:	<p>The topic of the project will be decided at the beginning of the year by the supervisory team. Topics will be selected from a suitable area reflecting the expertise and research/industrial interests of the supervisory team and the degree programme. Where possible, student projects will be matched to their interests and liaison will be made with industry of other agencies where practical. Students are initially given explicit guidelines with respect to: Assessing the literature and writing a literature review Research methodologies, ethics, plagiarism and research code of practice Collaborating with others and with industrial partners Project planning, setting objectives, health and safety and GLP etc Presentation and scientific communication Deadlines and house style The literature review and project plan will be completed in term 1. Ten hours lectures will support this element of the module covering literature review, database access, project planning, science writing and referencing. The draft literature review must be submitted by an agreed date before Christmas. The project work will run for 6 hours per week. Projects will be carried out under supervision usually at IT Carlow. During the planning, practical and write up phase of their project the student will be closely supervised by the supervisor. The student is expected to develop skills in project planning and to recognise and solve problems. A standardised form of referencing will be used throughout the project. The final project report will be written in the agreed style with the support and advice of the supervisor. During the write up students will be guided by their supervisor through this process. The student will receive written guidelines concerning the adherence to deadlines and production of project report in the agreed house style. The student is required to submit the required declaration and adhere to the Institute's plagiarism policy.</p>
Module Aim:	<p>To develop the learner's knowledge, skills and competency in project planning, design and execution and in the analysis and presentation of data. To enable students to present results in the context of the current stage of knowledge in oral and written form. To allow the learner to work independently to address a research question with due regard for GLP and Health and Safety and place it in the context of the wider scientific literature.</p>
Learning Outcomes	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	Access the appropriate literature, critically analyse the material and produce a literature review on a research question. Explain the rationale of his/her project in the light of the current literature and demonstrate a clear understanding of the projects aims and objectives
LO2	Demonstrate competence in project design, planning, development and execution with due regard to GLP and health and safety where appropriate
LO3	Work in a safe and professional manner and keep an accurate record of their work
LO4	Demonstrate the ability to work independently, show initiative and solve problems.
LO5	Critically analyse the data generated during the project , use statistical analysis where appropriate and present the data in an agreed format and demonstrate an understanding of the limitations of the project and its methodologies.
LO6	Integrate the knowledge acquired through other modules on the programme in a practical manner and present a final project report in an agreed format orally present and defend work to peers and others.
Pre-requisite learning	
Module Recommendations	
<i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i>	
No recommendations listed	
Incompatible Modules	
<i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i>	
No incompatible modules listed	
Co-requisite Modules	
No Co-requisite modules listed	
Requirements	
<i>This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.</i>	
No requirements listed	

Module Content & Assessment

Indicative Content

Independent Research Project

An independent research project in environmental science, biosciences, Biopharmaceuticals, Bioforensics, bioinformatics or a related topic will be carried out by the student under the supervision and guidance of an academic. The project involves the development of autonomous self directed learning in consultation with supervisors and others. Students are assigned at least one supervisor who will guide them through the process, meeting with them regularly. Students have access to the expertise of the entire supervisory team and are expected to avail of such. Students are expected to engage in group learning by discussing their project with each other and helping with problem solving. They must record the ongoing progress of their project and the analysis of their data in a laboratory notebook, diary or in another format that will be monitored by their supervisor. Students will write up the referenced literature review and the final project report (introduction and the project rationale, methodology, project findings, discussion, conclusion, bibliography) in an agreed format in consultation with their supervisor who will correct a preliminary draft of each document.

Assessment Breakdown	%
Project	100.00%

No Continuous Assessment

Project				
Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Project	Referenced Literature Review	1	15.00	End-of-Semester
Project	Project Work	2,3,4,5	35.00	End-of-Semester
Project	Final Technical Paper/Report	2,5,6	40.00	End-of-Semester
Project	Presentation and defence		10.00	End-of-Semester

No Practical

No End of Module Formal Examination

SETU Carlow Campus reserves the right to alter the nature and timings of assessment

Module Workload

Workload: Full Time		
<i>Workload Type</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Laboratory	24 Weeks per Stage	6.00
Estimated Learner Hours	30 Weeks per Stage	3.27
Lecture	24 Weeks per Stage	0.33
Total Hours		249.92

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_SABTP_B	Bachelor of Science (Honours) in Biosciences with Biopharmaceuticals	8	Mandatory