

Module Title:	Bioscience Project and Workplace Planning
Language of Instruction:	English
Credits:	10
NFQ Level:	6
Module Delivered In	2 programme(s)

Teaching & Learning Strategies:	<p>This module uses scaffolded active learning strategies to help students develop key transferrable skills and help them transition to the workplace. The students' autonomous enquiry and workplace skill, such as organisation, time management, team and communication skills will be developed by enabling student to become aware of these skills practice their new competencies via a project, scenarios and case studies. Students, with guidance, will choose a project topic, find, organise and summarise background information from credible sources. Students will be supervised to execute a laboratory project demonstrating gGLP, adherence to principles of health and safety and the correct use of controls and validation of methods as appropriate. To develop organisational, time management, and communication skills, students will liaise and interact with supervisory staff and regularly report on progress. Results will be analysed, using appropriate statistical and mathematical methods as appropriate and discussed in the context of the background information. Feedback will be given to students throughout. Students, with guidance will produce a report in the appropriate scientific style using an agreed referencing system. Students will then make a full presentation of their research project in a formal setting using appropriate AV aids. Lecturers and fellow students will ask questions on the topic and the team of supervisors will assess the presentation. Workplace skills such as effective personal presentation, communication, time management and team work will be developed using a range of scaffolded learning methods: Oral and writing skills; use of digital technology including video and studio work Teamwork skills; working on own initiative and within a group environment Role playing Case studies/ scenarios Problem solving approach where possible Students will be guided through all aspects of this module and will receive feedback, via written, oral and video means.</p>
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Module Aim:	<p>1. To give the student an insight in the area of project design, management and operation from idea generation to final outcome including problem solving, the possibility of commercial potential 2. To allow students to apply their analytical research skills. 3. To give the student an insight into the requirements of the modern work place and the prerequisites required for the transition from academic life to the work environment.</p>
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Learning Outcomes	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	Identify a suitable experimental design, plan, develop and execute the project using appropriate methods and meeting the essential requirements as specified for the project.
LO2	Find, organise, analyse and communicate background information from credible sources and use this to contextualise and discuss project results and other inquiry based activities in an appropriate format.
LO3	Produce and present a project report and other documents in the agreed scientific style to peers and others via written, oral and other means.
LO4	Understand the transition from the academic to the workplace environment and understand the various facets of a modern workplace situation. Prepare for and take part in a mock interview.
LO5	Demonstrate proficiency in working within a team setting, meeting deadlines as required and develop time management, organisational and entrepreneurial skills.

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>
Successful completion of year 2 or equivalent

Module Content & Assessment

Indicative Content

Project 1

Overview of experimental design, critical review of resources and preparation to scientific writing according to scientific paper standards.

Project 2

Planning and carrying out a background survey to 'scope' the project. Identification of credible source from digital and other sources. Organising and summarising information. Correct attribution of sources citations and references. Plagiarism and how to avoid it. Learning from Turnitin. Annotated bibliographies. Health and Safety issues, Risk assessment. MSDS, ordering materials.

Project 3

Week by week work-plan, to facilitate optimum use of and exposure to various and relevant laboratory facilities and techniques which may include, analytical, microbiological, chemical biochemical and sensory techniques as appropriate.

Project 4

Recording data. Lab book maintenance, cGMP, use of controls, calibration of equipment, validation of methods.

Project 5

Data treatment and analysis, mathematical transformation, statistical evaluation. Use of Tables and Figures.

Work place planning 1

Essential requirements for the transition from the academic to the work environment.

Work place planning 2

Methods of recruitment (job specific)

Work place planning 3

Letter of application and curriculum vitae preparation (review, job specific) mock interview, demonstrate a passion

Work place planning 4

Understanding the job requirements (technical and other)

Project and Workplace planning

Finding credible sources of information. Scientific academic writing. Referencing systems. Organising and managing sources of information. Communication skills, oral, written and presentation to groups, producing posters.

Assessment Breakdown

	%
Continuous Assessment	30.00%
Project	70.00%

Special Regulation

Students must achieve a minimum grade (35%) in both the project and CA

Continuous Assessment

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Other	Work in a team setting to solve various work based problems posed via scenarios and case studies. Prepare progress reports, adhere to deadline as required. Develop and optimise their application letter and curriculum vitae and realising their importance, and undergoing a "mock interview or equivalent" to prepare for the workplace. Assessment might include the use of virtual environments such as blackboard, Teams etc.	3,4,5	30.00	n/a

Project

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Project	Project planning, project background; definition of project aims, organisation and execution; problem solving. Adherence to cGMP and Health and Safety regulations. Data recording, appropriate use and analyses of results and hypothesis testing.	1,2	35.00	Every Week
Project	Final report written in appropriate scientific style, such a paper, to include background; Materials and Methods; Results and discussion, conclusions and reference list in accordance with the Institute referencing style.	3	15.00	End-of-Semester
Project	Oral/ poster presentation and defense to peers and others.	3	10.00	End-of-Semester
Project	Peer-and Self Assessment of team's work	5	10.00	End-of-Semester

No Practical

No End of Module Formal Examination

Module Workload

Workload: Full Time		
<i>Workload Type</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Lecture	12 Weeks per Stage	2.00
Laboratory	12 Weeks per Stage	4.00
Estimated Learner Hours	30 Weeks per Stage	5.93
Total Hours		250.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_SABTP_B	Bachelor of Science (Honours) in Biosciences with Biopharmaceuticals	6	Mandatory
CW_SABFQ_D	Bachelor of Science in Biosciences	5	Mandatory