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Title: Skills for Biomolecular Scientists
 Status: Definitive
 Code: **4010GNBMOL** (117418)
 Version Start Date: 01-08-2016

Owning School/Faculty: Pharmacy & Biomolecular Sciences
 Teaching School/Faculty: Pharmacy & Biomolecular Sciences

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Academic Level: FHEQ4 **Credit Value:** 24 **Total Delivered Hours:** 60

Total Learning Hours: 240 **Private Study:** 180

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	24
Practical	10
Tutorial	12
Workshop	14

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Portfolio	Tutorial	Tutorial Work	40	
Report	Laboratory	Laboratory Work	30	
Presentation	Poster	Group Poster	20	
Self Awareness Statement	WoW Bronze	Self Awareness Statement	10	

Aims

To facilitate effective study of Biomolecular Sciences by providing a foundation in basic methodology, data handling, IT, laboratory techniques and skills and study skills via lectures, practicals, IT workshop and weekly tutorials which are a mixture of academic material, group work and transferable skills. This module will provide an opportunity for the WOW Bronze statement.

Learning Outcomes

After completing the module the student should be able to:

- 1 Use simple numerical and mathematical skills in relation to laboratory procedures and basic chemical and biochemical calculations. Interpret written instructions, perform routine laboratory tasks and analyse both given data and practical results.
- 2 Locate information from a wide range of sources and use this to write scientific essays, papers, deliver a seminar and construct (as a group) a poster. Appreciate that basic scientific principles and information interrelate throughout core modules.
- 3 Work effectively as a member of a team.
- 4 To identify and reflect upon the following aspects of personal development: strengths and weaknesses, motivations and values, ability to work with others

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Tutorial Work 2 3

Laboratory Work	1
Group Poster	3
Bronze Statement & Reflection	4

Outline Syllabus

Study Skills: The learning process, types of learner, strategies for study & revision, time management, working in groups, organisation and leadership. The presentation of written material including essays, graphical & tabular presentation of data. Oral presentation.

Numeracy: Algebra, powers, orders of magnitude and logarithmic scales.

Expression of results, significant figures, linear equations. Basic statistics.

Concepts linked to basic laboratory calculations on concentration, amount, dilution, pH and buffers.

Information Technology: Introduction to the University PC network and University webpages. Word processing and spreadsheets, graphical representation of data, email & the world wide web.

General Laboratory Skills: Introduction to Health & Safety. Record keeping - the laboratory note book. Practical sessions will highlight laboratory skills such as; the use of basic laboratory equipment; Preparation of solutions & dilutions and the measurement of concentration; the measurement of pH;

Lecture material may include: study skills; health & safety; basic laboratory procedures; basic numeracy; basic statistics; spectroscopy; pH and buffers; chromatography; electrophoresis

Tutorials: A tutorial timetable and handbook will be produced at the beginning of the year. Tutorials will include pastoral care, PDP, oral presentations and group work (poster session), transferable skills, numeracy, chemistry, biochemistry, cell biology.

Learning Activities

Lectures, Practicals, workshops & tutorials

Notes

To facilitate effective study of Biomolecular Sciences by providing a foundation in basic methodology, data handling, IT, laboratory techniques and skills and study skills via lectures, practicals, IT workshop and weekly tutorials which are a mixture of academic material, group work and transferable skills. This module will provide an opportunity for PDP.