

Section 2 - Module Specification

Module Title

Credit Value Level Mode of Delivery Semester

Module Organiser

Pre-requisite modules	Co-requisite modules	Overlapping modules
BMD123 Biomolecules of Life		

1) Content Description

Provide a description of the module, as it will appear in the Module Directory and on the Student Information System (approx. 70-80 words).

This module is only open to students on the Biomedical Sciences degree programme. The module aims to provide biochemical information on selected specialised structural and functional bulk proteins including: selected human physiological processes; monosaccharide, fatty acid, steroid, amino acid and nucleotide metabolic pathways; regulation of metabolic pathways; tissue specialisation; and metabolic diseases.

2) Module Aims

Specify the aims of the module, i.e. the broad educational purposes for offering this module.

The course aims to provide biochemical information on:

- selected specialised structural and functional bulk proteins
- selected human physiological processes
- monosaccharide, fatty acid, steroid, amino acid and nucleotide metabolic pathways
- regulation of metabolic pathways
- tissue specialization
- metabolic diseases

3) Learning Outcomes

Identify the learning outcomes for this module, i.e. knowledge, skills and attributes to be developed through completion of this module. Outcomes should be referenced to the relevant [QAA benchmark statements](#) and the [Framework for Higher Education Qualifications in England, Wales and Northern Ireland \(2008\)](#). The [SEEC Credit Level Descriptors for Further and Higher Education 2003](#) and [Queen Mary Statement of Graduate Attributes](#) should also be used as a guiding framework for curriculum design.

Academic Content:	
A 1	Explain how primary structure of a protein leads to tertiary (and higher) structure and biological function
A 2	Explain the molecular reactions underpinning human physiological processes
A 3	Describe the metabolic pathways of synthesis and degradation of the main groups of monomer biomolecule
A4	Review the molecular mechanism regulating human metabolic pathways
A5	Review biochemical specialisation of human tissues and organs
A6	Describe diseases of human metabolism

Disciplinary Skills - able to:	
B 1	Students will learn how to identify core information about biochemical reactions that underpin human physiological functions, normal and dysfunctional metabolism and their manifestation in specialised tissues and organs and to supplement this with appropriate specific examples. The course will include some clinical SDL coursework and four practical exercises to develop biochemical practical skills.

Attributes:	
C 1	Overall the module will improve the students' ability to handle theoretical information and enhance their practical skills

4) Reading List

Provide an indicative reading list for the module. This should include key texts and/or journals but should not be an exhaustive list of materials.

Voet & Voet Biochemistry, 3rd edition, pub Wiley
J.M. Berg, J.L. Tymoczko & L. Stryer, 2006. Biochemistry (Freeman) (6th Edition)
T. Devlin, 2006. Textbook of Biochemistry With Clinical Correlations ((Wiley-Liss) (6th Edition)

5) Teaching and Learning Profile

Provide details of the method of delivery (lectures, seminars, fieldwork, practical classes, etc.) used to enable the achievement of learning outcomes and an indicative number of hours for each activity to give an overall picture of the workload a student taking the module would be expected to undertake. This information will form the Key Information Set for each undergraduate programme and will be used to populate the KIS widget found on the QMUL programme information pages. More information can be found [online](#) about KIS. You may also wish to refer to the [QAA guidance on contact hours](#) when completing this section.

Activity Type	KIS Category	Time Spent (in hours)
Lecture	Scheduled	24h
Laboratory Practicals	Scheduled	12h
Total		36h

Specify the total module notional study hours. This should be a total of the hours given for each activity. The notional study hours for each academic credit point is 10. A 15 credit point module therefore represents 150 notional study hours.

Activity Type	Total Time Spent (in hours)	Percentage of Time Spent
Scheduled learning and teaching	36h	24%
Placement		
Independent Study	114h	76%
Total	150h	100%

Use the information provided in the box above to specify the total time spent and the percentage time spent in each category of teaching and learning activity.

6) Assessment Profile

Provide details of the assessment methods used to assess the achievement of learning outcomes.

Description of Assessment	Assessment Type	KIS Category	Duration / Length	% Weighting	Final element of assessment?	Qualifying Mark
Exam	Written Exam	Written	2 hours	50	Yes	
Inclass test	Coursework	Coursework		25	No	
Practical	Coursework	Practical		25		

Section 4b - Half Module for Associate Students (for a half module to be taught in Semester B)

This section must be completed if the proposed module will take place over 2 semesters but will be made available to single-semester associate students in a half-credit format in [Semester B](#). Modules worth less than 30 credits taken over 2 semesters may not be made available in a half-credit format. To add details for the half module please click 'Add Half Module (Semester B)'.