

Module Specification

Module Title Module Code
 Credit Value Level Mode of Delivery Semester A

Pre-requisite modules	Co-requisite modules	Overlapping modules
BMD115 The Human Cell		

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).

The first part of the module reviews how cells interact during development and how they use their positional information to differentiate into the diverse cell types. Differentiated cells are replaced in adult tissues of many organisms and we will discuss the diverse mechanism of regeneration. In the accompanying practicals on planarian regeneration, the students will use their knowledge of morphogen gradients and regeneration to design their own experiments and to test existing theories. The second part of the module introduces the interaction of cells and environment covering topics such as teratogenesis. In the last part we will discuss the adult functions and interactions of cells in cell communication and cell signalling.

2) Module Aims

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

This module is designed to provide you with detailed up-to-date knowledge of cell biological techniques, the structural organisation, development and differentiation of eukaryotic cells as well as key processes in development that are based on cell-cell interactions and cell movements. In the practicals you will learn how to design your own theory-based experiments and you will be familiarised with the preparation/manipulation of cell material in living organisms. The module provides an invaluable foundation for genetics, biochemistry, molecular, neurobiological, physiological and biomedical programmes.

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:

A1	Able to understand the concepts of developmental biology, including the environmental impact on developmental processes
A2	Able to understand the concepts of regeneration
A3	Able to understand the methodical and technical approaches of addressing questions in developmental biology
A4	Able to understand the principles of cell-cell and cell environment interactions, including cell migration and invasion

Disciplinary skills - able to:	
B1	Able to understand how cells develop into the diverse cell types and tissues and how they interact in their differentiated form
B2	Able to identify cellular structures in light, electron and confocal micrographs
B3	Able to plan and execute experiments on developmental phenomena
B4	Able to interpret data showing the regeneration of body plans.

Attributes:	
C1	Confidence in addressing open questions in developmental and cell biology
C2	Confidence in developing own ideas

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.

M Becker et al The World of the Cell. Benjamin/Cummings
 B Alberts et al. Molecular Biology of the Cell. Garland
 SF Gilbert Developmental Biology.
 Gilbert & Epel Ecological Developmental Biology

These texts are recommended, but the module is not tied to a particular text book.

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)
Lectures		22
Practicals		2
Total		24

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
Lectures (attendance)	22	15
Lectures (revision)	118	79
Practical (attendance)	2	1
Practical (preparation/revision)	8	5

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	Percentage Weighting	Final element of assessment	Qualifying Mark
Written Examination	Examination	Written Exam	2 Hours and 30 Minutes	75%	Yes	
Coursework	Report	Coursework		25%	No	

Final element of assessment: The assessment that takes place last. There should normally be only one element of assessment marked as final unless two assessment or submission dates occur on the same day.

Qualifying mark: A specified minimum mark that must be obtained in one or more elements of assessment in order to pass a module. This is in addition to, and distinct from, the requirement to achieve a pass in the module mark to pass the module.

Reassessment

Provide details of the reassessment methods used, specifying whether reassessment is either standard reassessment or synoptic reassessment.

- Standard Reassessment
 Synoptic Reassessment

Synoptic reassessment details (if you have indicated synoptic reassessment above, please give details)		
Brief Description of Assessment	Assessment Type	Duration/Length of Examination/ Coursework
Resit Examination	Written Examination	2 Hours 30 minutes