

## Module Specification

Module Title  Module Code   
Credit Value  Level  Mode of Delivery  Semester

Pre-requisite modules	Co-requisite modules	Overlapping modules
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### 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).

Behavioural epigenetics is an emerging field of psychology, which seeks to explain how environment and experience alter behaviour by working through molecular mechanisms based in the genome. Through these mechanisms, early life experiences can shape the long-term behaviour of an individual, and even influence the behaviour of subsequent generations. Experimental evidence from both humans and other animals will be examined.

### 2) Module Aims

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

1. To understand the mechanisms by which experience can leave “marks” on genes and alter gene expression and function.
2. To consider specific experimental evidence that natural experiences have epigenetic consequences on brain and behaviour.
3. To consider experimental evidence linking epigenetic mechanisms to various psychiatric disorders.
4. To understand how epigenetic processes can lead to transgenerational consequences.
5. To critically evaluate, discuss and resolve the classical “Nature vs Nurture” debate.

### 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	A critical understanding of how environment and experience can affect gene expression and function
A2	A critical understanding of how epigenetic processes can affect brain function and behaviour
A3	A critical understanding of potential transgenerational consequences of epigenetics, e.g., maternal effects

Disciplinary skills - able to:	
B1	Communicate core concepts in behavioural epigenetics
B2	Critically assess primary research literature in behavioural epigenetics
B3	Integrate, contrast, and critically evaluate different approaches to a broad psychological question

Attributes:	
C1	The ability to clearly report research findings from their own and other studies.
C2	The ability to manage learning including by researching the primary literature.
C3	The ability to challenge received literature and mount a coherent debate on complex conceptual topics.

#### 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.

Readings will be drawn from sources including:
1) Textbooks such as Flint, Kendler and Greenspan, "How Genes Influence Behavior"; and Moore, "The Developing Genome: An Introduction to Behavioral Epigenetics"
2. "Classic" primary research papers, such as: Weaver, et al. (2004). Epigenetic programming by maternal behavior. <i>Nature Neuroscience</i> , 7(8), 847–854.
3. Current review articles, such as: Keating, D. P. (2016). Transformative Role of Epigenetics in Child Development Research: Commentary on the Special Section. <i>Child Development</i> , 87(1), 135–142.

#### 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	22
Guided independent study	Independent	128
Total		150

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	22	14.7
Placement	0	0
Independent Study	128	85.3
Total	150	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	Percentage Weighting	Final element of assessment	Qualifying Mark
Final exam - essay, choice 2 of 6	Written Exam	Written	2 Hours	75%	Yes	N/A
Coursework	Written assignment, inc Essay	Coursework		25%	No	N/A

**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
Exam (Essay questions, choice of 2 of 6)	Written Exam	2 Hours