

### Summary Information

Module Code	4207NATSCI
Formal Module Title	Evolution and Inheritance
Owning School	Biological and Environmental Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 4
Grading Schema	40

### Teaching Responsibility

LJMU Schools involved in Delivery
Biological and Environmental Sciences

### Learning Methods

Learning Method Type	Hours
Lecture	32
Practical	20
Workshop	8

### Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
SEP-CTY	CTY	September	12 Weeks

### Aims and Outcomes

Aims	To examine key concepts and processes in evolution and to describe the role that inheritance and variation play. To describe the fundamental genetic mechanisms of inheritance and to explore the role of genetics in animal behaviour and conservation.
------	--

**After completing the module the student should be able to:**

### Learning Outcomes

Code	Number	Description
MLO1	1	Identify the fundamental biological processes involved in evolution and the diversity of life
MLO2	2	Identify the major molecular mechanisms of genetic inheritance in eukaryotes
MLO3	3	Recognise how genetic and phenotypic diversity vary in wild and domesticated populations.
MLO4	4	Recognise the importance of genetics in conservation.

### Module Content

Outline Syllabus	Natural selection; sexual selection; individual vs. group selection; selfish gene; fitness and adaptation; inclusive fitness; phenotypic plasticity; sympatric and allopatric speciation; genetic drift; essentials of cell biology and biochemistry; principles of genetics; genotype and phenotype; DNA and chromosomes; mitosis and meiosis; population genetics; behavioural genetics; genetics of domestication; artificial selection; conservation genetics
Module Overview	This module introduces you to the fundamentals of evolution and genetics, with a focus on key concepts that impact animal behaviour and conservation.
Additional Information	This module provides an introduction to the fundamentals of evolution and genetics, with a focus on key concepts that impact animal behaviour and conservation.

### Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Centralised Exam	Final Exam	40	1.5	MLO4, MLO3, MLO2, MLO1
Test	Test	60	0	MLO4, MLO3, MLO2, MLO1

### Module Contacts

#### Module Leader

Contact Name	Applies to all offerings	Offerings
William Swaney	Yes	N/A

#### Partner Module Team

Contact Name	Applies to all offerings	Offerings
--------------	--------------------------	-----------