

Liverpool John Moores University

Title: EVOLUTION AND INHERITANCE
Status: Definitive
Code: **4207NATSCI** (122046)
Version Start Date: 01-08-2021

Owning School/Faculty: Biological and Environmental Sciences
Teaching School/Faculty: Biological and Environmental Sciences

Team	Leader
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Academic Level: FHEQ4 **Credit Value:** 20 **Total Delivered Hours:** 61.5

Total Learning Hours: 200 **Private Study:** 138.5

Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	32
Practical	20
Workshop	8

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	Exam	Final exam	40	1.5
Test	Test	Test	60	

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.

Learning Outcomes

After completing the module the student should be able to:

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

Learning Outcomes of Assessments

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

Final Exam	1	2	3	4
Test	1	2	3	4

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

Learning Activities

This module is delivered through a combination of lectures, practicals and computer workshops.

Notes

This module provides an introduction to the fundamentals of evolution and genetics, with a focus on key concepts that impact animal behaviour and conservation.