

Liverpool John Moores University

Title: GENETICS FOR BEHAVIOUR AND CONSERVATION
Status: Definitive
Code: **4006NATSCI** (120880)
Version Start Date: 01-08-2015

Owning School/Faculty: Natural Sciences & Psychology
Teaching School/Faculty: Natural Sciences & Psychology

| Team | Leader |
|-----------------|--------|
| Will Swaney | Y |
| Craig Wilding | |
| Robbie Rae | |
| Carlo Meloro | |
| Sarah Dalrymple | |
| Elaine Hemers | |
| Richard Brown | |
| Clare Milsom | |

Academic Level: FHEQ4 **Credit Value:** 24.00 **Total Delivered Hours:** 62.50
Total Learning Hours: 240 **Private Study:** 177

Delivery Options

Course typically offered: Standard Year Long

| Component | Contact Hours |
|-----------|---------------|
| Lecture | 34.000 |
| Practical | 20.000 |
| Workshop | 7.000 |

Grading Basis: 40 %

Assessment Details

| Category | Short Description | Description | Weighting (%) | Exam Duration |
|----------|-------------------|-------------|---------------|---------------|
| Exam | EXAM | MCQs | 50.0 | 1.50 |
| Test | PT | Phase test | 50.0 | 1.00 |

Aims

To examine the fundamental processes that govern life and evolution, with a focus on the role of genetics in animal behaviour, and how genetics informs conservation.

Learning Outcomes

After completing the module the student should be able to:

- 1 Explain the mechanisms of inheritance in eukaryotes
- 2 Explain the processes that drive genetic and species diversity
- 3 Discuss the primary features of the evolution of life
- 4 Discuss the role that genetics plays in behaviour among wild and domesticated animals
- 5 Evaluate how genetics influences conservation

Learning Outcomes of Assessments

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

| | | | | | |
|------------|---|---|---|---|---|
| Exam | 1 | 2 | 3 | 4 | 5 |
| Phase test | 1 | 2 | | | |

Outline Syllabus

Essentials of cell biology and biochemistry; principles of genetics; genotype and phenotype; DNA and chromosomes; mitosis and meiosis; inheritance and evolution; speciation; population genetics; behavioural genetics; genetics of domestication; artificial selection; conservation genetics; systematics; phylogenetics; major living and fossil groups; metazoan evolution; vertebrate origins; macroevolution

Learning Activities

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

Notes

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