

LF133-15 Plant Science and Zoology

24/25

Department

Life Sciences

Level

Undergraduate Level 1

Module leader

Robin Allaby

Credit value

15

Module duration

10 weeks

Assessment

100% exam

Study location

University of Warwick main campus, Coventry

Description

Introductory description

Welcome to the Animal and Plant Biology course.

The course contains 28 lectures and covers major animal and plant body plans and their evolution in deep time. We take you onto a journey of discovery, to see animals and plants from the molecular and cellular 'inside'.

We show you how organisms changes across vast timescales and how we can trace these processes. This is going to be much different from what you have learned in school, so enjoy the ride!

To make the most of this, we encourage you to look at the lectures, films and papers we put on this website before and after the lectures. They are complementary to the lectures themselves and not a substitute for each other.

More details about the module can be found in the module summary and on this website.

[Module web page](#)

Module aims

The module progresses from a series of lectures covering zoological methods, with an analysis of the evolutionary relationships between different Phyla and groups of animals and plants. A

comparison is then drawn of the differences of plant to animal biology in terms of their cell biology, biochemistry and physiological activities. Finally the diversity of major groups is discussed. The aims of the courses for which this is available are to introduce students to a range of Biological subjects and this is the only truly whole organismal material in the degree programmes. The overall objective for students is to acquire the ability to integrate organismal and molecular knowledge in a broad, evolutionary context.

Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

1. Lecture 1: The Tree of life

Lectures 2 and 3: The dawn of multicellular animals, the Metazoans

Lectures 4 and 5: The evolution of the Bilaterian body plan. The Lophotrochozoans

Lecture 6&7 Ecdysozoa

Lectures 8 - 11 Chordates, Tetrapods, Dinosaurs and Birds

Lecture 14 - Hominid evolution

Lecture 15-18: Plant origins

Lecture 19 Co-evolution in the Anthropocene

Lecture 20 Extinctions and the Carbon cycle

Lectures 21-24 - Plant structure-function

Lectures 25-27 - Plant Development and Reproduction -

Lectures 28-30: Plant responses to environmental stress

Learning outcomes

By the end of the module, students should be able to:

- By the end of the module the student should be able to:
- Understand and describe the methods used in Zoology to define the major groups of Animals.
- Understand and describe invertebrate and vertebrate diversity
- Understand and describe plant structure and the function of the various components of a plant.

Indicative reading list

Sadava et al Life: The Science of Biology. Freeman 2006

Subject specific skills

By the end of the module the student should be able to:

- Understand and describe the methods used in Zoology to define the major groups of Animals.
- Understand and describe invertebrate and vertebrate diversity
- Understand and describe plant structure and the function of the various components of a plant.

Transferable skills

1. Critical appraisal of source material
 2. Self directed learning
 3. Adult learning
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Study

Study time

Type	Required
Lectures	30 sessions of 1 hour (20%)
Private study	120 hours (80%)
Total	150 hours

Private study description

Self directed learning and revision for end of year exam

Costs

No further costs have been identified for this module.

Assessment

You must pass all assessment components to pass the module.

Assessment group B

	Weighting	Study time
Examination	100%	
100% examined: 1 hour examination in the summer		

Feedback on assessment

Pastoral meetings with tutors\r\n\r\n

[Past exam papers for LF133](#)

Availability

Courses

This module is Core for:

- UBSA-3 Undergraduate Biological Sciences
 - Year 1 of C100 Biological Sciences
 - Year 1 of C100 Biological Sciences
 - Year 1 of C102 Biological Sciences with Cell Biology
 - Year 1 of C103 Biological Sciences with Environmental Resources
 - Year 1 of C104 Biological Sciences with Microbiology
 - Year 1 of C105 Biological Sciences with Molecular Genetics
 - Year 1 of C107 Biological Sciences with Virology
- Year 1 of ULFA-C1A1 Undergraduate Biological Sciences (MBio)
- Year 1 of ULFA-C113 Undergraduate Biological Sciences (with Placement Year)
- Year 1 of ULFA-C1A5 Undergraduate Biological Sciences with Industrial Placement (MBio)

This module is Core optional for:

- UIPA-C1L8 Undergraduate Life Sciences and Global Sustainable Development
 - Year 1 of C1L8 Life Sciences and Global Sustainable Development
 - Year 1 of C1LA Life Sciences and Global Sustainable Development: Biological Sciences
 - Year 1 of C1LB Life Sciences and Global Sustainable Development: Ecology