

BIOS 2035 PRINCIPLES OF ZOOLOGY

Credit Points 10

Legacy Code 300979

Coordinator Kate Umbers ([https://directory.westernsydney.edu.au/search/name/Kate Umbers/](https://directory.westernsydney.edu.au/search/name/Kate%20Umbers/))

Description Explores the diversity of invertebrate and vertebrate life in a phylogenetic context. Taxonomy, anatomy, ecology, ethology and physiology of major groups of animals are examined. Patterns will be examined from an evolutionary perspective and the unit will focus on structure and function to examine specialisations and adaptations of animals to their environment. The unit will use lectures and laboratory sessions to allow an interactive appreciation of the diversity of biological mechanisms and processes in the Animal Kingdom.

School Science

Student Contribution Band HECS Band 2 10cp

Check your HECS Band contribution amount via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Undergraduate Level 2 subject

Pre-requisite(s) BIOS 1001

Learning Outcomes

On successful completion of this subject, students should be able to:

1. Identify the Phylum and Class to which any animal belongs, and within certain Classes, identify its Order;
2. Place animal Phyla in an evolutionary sequence, using evidence derived from body architecture, symmetry and internal complexity;
3. Explain reproductive mechanisms and life-cycles of animals in relation to lifestyle and habitat;
4. Characterise each of the major animal Phyla and constituent Classes in terms of their distinguishing features; relate physiological complexity to phylogenetic sequence;
5. Analyse the reasons for the success and diversity of the arthropods and vertebrates;
6. Dissect, identify and describe the function of major internal organs or structures of invertebrates and vertebrates;
7. Analyse and present data and communicate key findings.

Subject Content

1. Porifera & Cnidaria
2. Platyhelminthes, Nematoda & Annelida
3. Mollusca
4. Arthropoda
5. Echinodermata
6. Molluscs
7. Segmented Worms & Pseudocoelomates
8. Arthropods and Echinoderms
9. Lower Chordates & Fishes
10. Amphibians
11. Reptiles
12. Birds
13. Mammals

Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Item	Length	Percent	Threshold	Individual/ Group Task
Recorded Presentation (video or audio)	3 mins	35	N	Individual
Quiz	up to 30 mins per quiz	30	N	Individual
Final Exam - Online multiple choice and open answer questions	2 hours	35	N	Individual

Prescribed Texts

- Hickman, CP 2011 Integrated principles of zoology, 15th edn, McGraw-Hill, New York, NY.
- Hickman, CP, Kats, LB & Keen, SL 2011 Laboratory studies in integrated principles of zoology, 15th edn, McGraw Hill Higher Education, Boston.

Teaching Periods