BIOS 2040 INVERTEBRATE ZOOLOGY

Credit Points 10

Legacy Code 301256

Coordinator Scott Johnson (https://directory.westernsydney.edu.au/search/name/Scott Johnson/)

Description More than 99% of animals are invertebrates and due to their key role in all ecosystems, renowned biologist E. O. Wilson famously described them as the 'little things that run the world'. Besides their ecological importance, many invertebrates are useful to humans, whereas others are harmful to agriculture, human and veterinary health. This subject introduces invertebrate diversity in the context of their ecological and economic importance. It also develops skills necessary to classify and distinguish between the major invertebrate taxa. This subject includes fundamental hands-on laboratory and field studies skills for students with broad career pathways in science (e.g. animal, environmental, forensic and medical sciences) as well as agriculture, environmental management, and education.

School Science

Discipline Zoology

Student Contribution Band HECS Band 2 10cp

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

Level Undergraduate Level 2 subject

Equivalent Subjects NATS 3026 Forensic Biology BIOS 2035 Principles of Zoology

Incompatible Subjects BIOS 3017 Invertebrate Biology

Assumed Knowledge

A basic understanding of core concepts of biology and/or zoology is desirable.

Learning Outcomes

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

1. Describe how the ﷺ of life ﷺ concept applies to identification and classification of invertebrate taxa.
2. Compare and contrast reproduction, behaviour, physiology, development, lifecycles, morphology and anatomy of the major invertebrate taxa.
3. Develop the knowledge and skills to identify and classify major invertebrate taxa.
4. Describe invertebrate biodiversity in an ecological and evolutionary context.
5. Describe the concepts and evaluate the roles and interactions of invertebrates in the human and natural environments.
6. Describe the major principles of invertebrate conservation and major threats to invertebrates.
7. Develop communication skills in presenting information on the scientific method as it relates to invertebrates and results of scientific studies in an engaging format.

Subject Content

1.Introduction to the principles and concepts underpinning invertebrate diversity
2.Reproduction, behaviour, physiology, development and lifecycles of the major invertebrates orders
3.Classification, morphology and anatomy of the major invertebrate taxa
4.Introduction to applied invertebrate ecology in human and natural environments
5.Engaging communication formats to present scientific information.

Special Requirements

Legislative pre-requisites

Students who opt to enrol in this subject are strongly recommended to obtain a Tetanus vaccination/booster. Students who cannot evidence vaccination may be precluded from activities on the Farm, and/or internships with third parties.

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.

Type	Length	Percent	Threshold	Individual/ Group Task
Quiz	up to 30 minutes per quiz	30	N	Individual
Presentation	3 minutes + 30 seconds	35	N	Individual
Final Exam	2 hours	35	N	Individual

Prescribed Texts

- Brusca, RC & Brusca, GJ 2003, Invertebrate, 2nd edn, Sinauer Associates, Sunderland, Mass.

Teaching Periods

Spring (2024)

Hawkesbury

On-site

Subject Contact Scott Johnson (https://directory.westernsydney.edu.au/search/name/Scott Johnson/)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=BIOS2040_24-SPR_HW_1#subjects)