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The published on-line version of the Course Profile is the authoritative version and by the publication of the Course Profile on-line the University deems the student has been notified of and read the course requirements.

# 1. General Course Information

## 1.1 Course Details

| | |
|---|---|
| **COURSE CODE** | 2303ENV |
| **COURSE TITLE** | Zoology |
| **ACADEMIC ORGANISATION** | ESC School of Environment and Science |
| **TRIMESTER** | Trimester 1 2021 |
| **MODE** | Blended |
| **LEVEL** | Undergraduate |
| **LOCATION** | Nathan, On Campus |
| **CREDIT POINT VALUE** | 10 |

## Course Description:

This course provides a comprehensive overview of the animals, organised in a phylogenetic manner. The course examines the diversity of the animals, their classification and evolutionary relationships, form, structure, function and interrelationships. Some emphasis is placed on groups that are terrestrial, the arthropods, and vertebrates. Incompatible: 2705ENV Entomology, 2251ENV Animal Diversity

## Assumed Background:

Students should have at least a basic understanding of animal organ systems, cell biology, animal physiology, and evolutionary genetics.

## 1.2 Course Introduction

For many people, our fascination with the natural environment is driven by the diversity of animals, while plants and fungi provide simply a backdrop (of course there are exceptions for those botanists or microbiologists amongst us!). The interactions people have with the natural environment is often through animals, either as objects of interest (e.g. birds and butterflies), sources of food (domestic livestock, hunting) or threats to our wellbeing (e.g. crop pests, predatory animals, biting insects, disease vectors and parasites). Further, animals are essential for the proper functioning of the world (e.g. detritivores, scavengers, pollinators, and predators that maintain balance of prey populations).

Zoology is a multifaceted discipline that explores the classification, habits and behaviours of animals in their environment. This course will review all the major groups (Phyla) of animals and consider the way of life of the enormous diversity of species, and their form and role in the world's ecosystems. Particular emphasis will be placed on covering the diversity of faunal groups that are most prominent to people, including marine life forms, the arthropods (insects in particular) and the vertebrates.

With many more than 1.5 million named species, and a bewildering diversity of forms and lifestyles, some organising paradigm is required to understand this diversity. In this course the phylogeny of the animals will provide the organising concept to place them in context of other animals and to assist students in comprehending the diversity and relationships of these remarkable creatures.

## Previous Student Feedback

This course was offered for the first time in 2015.

Material in this course has previously been delivered in 1602ENV *Botany and Zoology* and 2705ENV *Entomology* and both courses were rated highly by students who completed evaluation feedback. Students in this course have mentioned that "*The content and set up of the course was very interesting. I really enjoyed how each lecturer was specialised in the content they delivered, and the subject and structure overall was very interesting*" and that they "*Loved the laboratories, they were fun. Also liked learning from different lecturers*".

# 1.3 Course Staff

| Primary Convenor **Dr Paul Oliver** | |
|---|---|
| **EMAIL** | p.oliver@griffith.edu.au |

| Lecturer **Dr Christopher Burwell** | |
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| **EMAIL** | c.burwell@griffith.edu.au |

| Lecturer **Prof Chris Frid** | |
|---|---|
| **PHONE** | 55528019 |
| **EMAIL** | c.frid@griffith.edu.au |
| **CAMPUS** | Gold Coast Campus |
| **BUILDING** | Science 1 (G24) |
| **ROOM** | 3.28 |

| Lecturer **Dr Carmel McDougall** | |
|---|---|
| **EMAIL** | c.mcdougall@griffith.edu.au |
| **CAMPUS** | Nathan Campus |
| **BUILDING** | Environment 2 (N13) |
| **ROOM** | 1.19a |

# 1.4 Timetable

Timetables are available on *the Programs and Courses website*.

NB: Details contained in this Section of the course profile and Section 4.1 Learning Activities are to be read in conjunction with the official class timetable. The published class timetable which is the authoritative source for timetabling information for all campuses can be located by clicking on the above link.

### Additional Timetable Information

In undertaking this course, students are expected to:

- Attend all face-to-face lectures (one hour each). There are three lectures in most weeks where activities are not disrupted by public holidays or field experience trips.
- Attend one workshop every second week, starting in Week 3 after the field experience. There will be five workshops in total (i.e. five contact hours / student).
- Attend one laboratory session each second week starting in Week 3, then running fortnightly from week 4 to 10(five labs in all, three hours each).

Attendance at all lectures is very strongly recommended, attendance at workshops is very strongly recommended and workshops will include quizzes that will contribute marks to the final grade for this course. Attendance at all labs is compulsory.

**Public Holidays**

In Trimester 1 2020 there are 2 public holidays. As teaching does not take place on public holidays, please note the following changes:

Monday 13th April - Easter Monday - classes will not be held

Monday 4th May - Labour Day - classes will not be held

for all other public holidays where a lecture or tutorial class is scheduled (or is cancelled for any unexpected reason), this class will normally not be repeated."

# 1.5 Lecture Capture

It is standard practice at Griffith University that lectures timetabled in lecture capture-enabled venues are recorded and made available to students on the relevant course site, in accordance with the University's Lecture Capture Policy.

The lecture series delivered as part of this course will be recorded and accessible via the Learning@Griffith course site.

# 2. Aims, Outcomes & Graduate Attributes

## 2.1 Course Aims

This course aims to equip students with a working knowledge of the diversity of animal life and a moderate degree of familiarity with the many different forms and lifestyles of animals. It is the first descriptive biology course students will take in their degree and aims to take students from a popular (and possibly limited) view of animals to a biological perspective, with understanding of their evolution, phylogeny, classification, form and function and behaviour.

This course will provide a basic to intermediate understanding of animal diversity and will provide a broad and comprehensive knowledge of animals for students who are not specialising in the wildlife field, and serve as a solid foundation for further studies in marine or terrestrial zoology for students taking such courses.

Students specialising in marine majors will take additional marine zoology, so, while this course is fully comprehensive, some emphasis is placed on terrestrial animals, particularly the most successful of all terrestrial animals, the insects.

## 2.2 Learning Outcomes

After successfully completing this course you should be able to:

**1** describe and discuss the diversity of animal forms and life histories;

**2** describe the role of molecular genetics in the development of the modern view of the phylogeny of life;

**3** discuss, with some authority, aspects of animal biology and relationships of animals with each other and their environment;

**4** describe the importance of animals in maintenance of a rich, diverse and healthy world;

**5** assign most common animals into their Phylum, and many into Classes or Orders;

**6** explain why the insects and vertebrates are so important in the modern world and what characteristics have enabled them to reach such importance;

**7** describe and discuss the challenge that terrestrial life has presented to animals and the solutions they have found for doing so;

**8** describe and discuss the diversity of animal life on the planet and explain the need to preserve that diversity through active efforts to protect species;

**9** be independent learners, capable and experienced with sourcing the most up-to-date information from judiciously-selected sources.

## 2.3. Graduate Attributes

For further details on the Griffith Graduate please click here

Griffith University prepares influential graduates to be:

- Knowledgeable and skilled, with critical judgement
- Effective communicators and collaborators
- Innovative, creative and entrepreneurial
- Socially responsible and engaged in their communities
- Culturally capable when working with First Australians
- Effective in culturally diverse and international environments

**This table demonstrates where each of the Griffith Graduate Attributes is taught, practised and assessed in this course.**

For further details on the Griffith Graduate Attributes please refer to The Griffith Graduate policy.

University wide attributes

| GRADUATE ATTRIBUTE | TAUGHT | PRACTISED | ASSESSED |
|---|---|---|---|
| Knowledgeable and skilled, with critical judgement | • | • | • |
| Effective communicators and collaborators | • | • | • |
| Innovative, creative and entrepreneurial | • | • | • |
| Socially responsible and engaged in their communities | • | • | |
| Effective in culturally diverse and international environments | • | • | |

# 3. Learning Resources

## 3.1 Required Resources

Details of your Required Learning Resources are available from the Reading List.

## 3.2 Recommended Resources

Details of your Recommended Learning Resources are available from the Reading List.

## 3.3 University Learning Resources

The University provides many facilities and support services to assist students in their studies. Links to information about

University support resources that are available to students are included below for easy reference.

Readings - New online service enabling students to access Required and Recommended Learning resources. It connects to the library catalogue to assist with quickly locating material held in Griffith libraries and enables students to manage and prioritise their readings, add personal study notes and export citations.

Learning@Griffith - there is a dedicated website for this course via the Learning@Griffith at myGriffith.

Academic Integrity Tutorial - this tutorial helps students to understand what academic integrity is and why it matters. You will be able to identify types of academic misconduct, understand what skills you will need in order to maintain academic integrity, and learn about the processes of referencing styles.

Student Support - provides a range of services to support students throughout their studies including personal support such as Counselling and Health Services; Academic support; and Financial and Welfare support.

The Careers and Employment Team provides: Career Wellbeing, Career Planning and Decision Making, Finding Jobs, Skills Identification and Development, Graduate Employment Information, LinkedIn Profile Review, Interview Preparation, Online Psychometric and Aptitude Test Preparation, International Student Support, Disability Disclosure Strategies and Higher Degree Research (HDR) Career Consultations.

Library and Learning Services: Library and Learning Services provides a wide range of quality client-focused services and programs to students, researchers and staff of the University. Library and Learning Services works in collaboration with the academic community to achieve academic and research outcomes.

Support for learning - the University provides access to common use computing facilities for educational purposes.

Code of Practice - Griffith Information Technology Resources.

## 3.5 Other Learning Resources & Information

There is no prescribed text for this course. Lecture content, tutorial material, practical manual and laboratory templates are required, and will be provided.

The lab work for this course will require students to have their own lab coat, bring it to every laboratory session and wear it in each session. There are no exceptions. Attendance in the field will also require students to complete the necessary field health and safety risk assessments. It is not possible to cover all aspects of zoology in a single course, and, indeed, not all relevant material can be presented in lectures before the topic is considered in laboratory work. Students are expected to find information beyond that given in lectures in their own time and on their own initiative. There are many relevant textbooks covering university-level zoology available, including in the campus library, and the most up-to-date information on modern zoology is available from diverse electronic sources including quality knowledge-bases and original scientific publications.

It is thus expected that students will show initiative in seeking such additional information, and wisdom in choosing credible, reliable and authoritative sources of such information.

# 4. Teaching & Learning Activities

## 4.1 Learning Activities

| Week Commencing | Activity | Learning Outcomes |
|---|---|---|
| 8 Mar 21 - 4 Jun 21 | **Course lectures (Lecture Series):** A series of online lectures with lecture capture so that students who cannot attend can view the lecture later and students who did attend can review it as they may require. | 1, 2, 3, 4, 5, 6, 7, 8 |
| 8 Mar 21 - 4 Jun 21 | **Workshops (Workshop):** The purpose of workshops is to facilitate learning by provided guided activities focused around building understanding of key questions and animal groups not covered in the practical sessions.<br>(1) Using online databases to identify and understand animals<br>(3) parasites<br>(5) annelids<br>(7) arthropods<br>(9) Echinoderms and Urochordates.<br>Three quizzes will be administered based on the content of the workshops and practicals. | 1, 2, 3, 4, 6, 8 |
| 15 Mar 21 - 28 May 21 | **Laboratory practical sessions (Laboratory):** Participate in 5 laboratory classes, held every second week, commencing week 2. The topics by week will be:<br>(2) Sponges and Cnidarians<br>(4) Molluscs<br>(6) Crustacea<br>(8) Arthropods<br>(10) Vertebrates<br>Three quizzes will be administered based on the content of the workshops and practicals. | 1, 3, 5, 8, 9 |

## 4.2 Other Teaching and Learning Activities Information

The course consists of a coordinated set of lectures, tutorials and practicals designed to give an overview of important aspects of zoology.

**Students are expected to attend all their classes every week**, collect all handouts and listen to all announcements, including check their Griffith email accounts for any course-related messages before lectures, and at least twice a week.

**Students Repeating a Course:** Normally, students repeating a course should not carry forward marks from a previous attempt. Assessment items are usually offered to provide formative experience as well as a summative assessment. Therefore, NO MARK for any assessment item from a previous attempt will be carried forward

**Public Holidays**

In Trimester 1 2021 there are 3 public holidays. As teaching does not take place on public holidays, please note the following changes:

Friday 2th April - Good Friday - classes will not be held

Monday 5th April - Easter Monday - classes will not be held

Monday 3th May - Labour Day - classes will not be held

for all other public holidays where a lecture or tutorial class is scheduled (or is cancelled for any unexpected reason), this class will normally not be repeated.

**Required materials**

Electronic copies of the lecture notes, practical manual and other course material will be placed on Learning@Griffith.

In lieu of a textbook, students will be expected to explore current topics in animal biology and phylogeny/ classification in their own time from authoritative sources, including high-quality websites.

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Molecular genetics is providing an avalanche of new information on the relationship between species and their likely evolutionary relationships. As a result, our understanding of the phylogenetic tree of life is changing rapidly: this course will present the most up-to-date available consensus picture of the phylogeny of animals. While students will become well-aware of these developments, this is not a course on molecular biology, but animal diversity, and lab activities will provide reinforcement of matters of morphology and form.

# 5. Assessment Plan

## 5.1 Assessment Summary

This is a summary of the assessment in the course. For detailed information on each assessment, see **5.2 Assessment Detail** below.

| ASSESSMENT TASK | DUE DATE | WEIGHTING | MARKED OUT OF | LEARNING OUTCOMES | MAXIMUM EXTENSION PERIOD |
|---|---|---|---|---|---|
| *Test or quiz*<br>Quizzes (3) | 5 Apr 21 - 4 Jun 21<br>Quizzes are 50 minutes in duration and will be accessed via learning@Griffith | 30% | 120 marks | 1, 2, 3, 4, 5, 6, 7, 8, 9 | |
| *Assignment - Practice-based Assignment*<br>Identifying and understanding Animal Diversity | 21 May 21 17:00<br>To be submitted on the Friday of Week 10 through TurnitIn on Learning @ Griffith | 35% | 100 marks | 1, 5, 7, 9 | |
| *Exam - selected and constructed responses*<br>Final examination | Examination Period | 35% | 100 marks | 1, 2, 3, 4, 6, 7, 8, 9 | |

## 5.2 Assessment Detail

**Title:** Quizzes (3)
**Type:** Test or quiz
**Learning Outcomes Assessed:** 1, 2, 3, 4, 5, 6, 7, 8, 9
**Due Date:**
5 Apr 21 - 4 Jun 21 Quizzes are 50 minutes in duration and will be accessed via learning@Griffith
**Weight:** 30%
**Marked out of:** 120
**Task Description:**
Students will sit three online quizzes comprising of multiple choice and short answer questions arising from material covered in the lectures and workshops. Three quizzes will be completed (Week 4, Week 9 and Week 12). The Quizzes will be primarily based on the content of pracs and workshops, and some content may also cross-reference with lectures.
**Criteria & Marking:**
Quizzes will be graded based on the ability of students to answer the series of multiple choice and short answer style questions. The quizzes are designed to test the factual knowledge and understanding of the course content. The quizzes contribute 30% of the overall mark for the course (10% per quiz).

**Submission:** Via the 'Assignments' tool in Learning@Griffith. Quizzes will made avaliable online.

**This assessment item:**

- is a school based activity
- is an individual activity
- does not include a self assessment activity
- does not have a re-attempt provision

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**Title:** Identifying and understanding Animal Diversity
**Type:** Assignment - Practice-based Assignment
**Learning Outcomes Assessed:** 1, 5, 7, 9
**Due Date:**
21 May 21 17:00 To be submitted on the Friday of Week 10 through TurnitIn on Learning @ Griffith
**Weight:** 35%
**Marked out of:** 100
**Task Description:**
Students will identify a suite of species to phylum, family and order, and provide information to justify their identifications. Students will then identify a smaller subset of species all they way down to species, again providing evidence to support their identifications, and then provide basic information about the distribution and ecology of their species. Finally students will utilise a popular online databases used for collecting data about Australian biodiversity, and write a short essay demonstrating their understanding of how distributions may have changes, and how the types of data being fed into databases may affect this inference. Details about this assignment will be provided in the first lab session with resources also being made available on Learning@Griffith. This assignment will also be submitted via Learning@Griffith.

**Criteria & Marking:**
Sections 1 and 2 will be marked via accuracy of identifications and inferred distributional and ecological data, and clarity of information provided to justify identifications

Section 3 will be marked against a) demonstrated ability to access data from online databases, b) demonstrated understanding of how the online databases aggregate data, and c) clear demonstration of some understanding of potential strengths and weaknesses of different online data repositories.

**Submission:** Via the 'Assignments' tool in Learning@Griffith. This assignment is submitted through the TurnitIn submissions portal on the course Learning @ Griffith site.

**This assessment item:**
- is a school based activity
- is an individual activity
- does not include a self assessment activity
- does not have a re-attempt provision

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**Title:** Final examination
**Type:** Exam - selected and constructed responses
**Learning Outcomes Assessed:** 1, 2, 3, 4, 6, 7, 8, 9
**Due Date:**
Examination Period
**Weight:** 35%
**Marked out of:** 100
**Perusal:** 10 minutes
**Duration:** 120 minutes
**Format:** Open Book, Online
**Task Description:**
The final exam will test the student's conceptual understanding and factual knowledge of all material presented in the course. The final exam will contain multiple-choice questions and questions requiring drawing or labelling a diagram, producing a list of items with short explanations, or short written answers.

**Criteria & Marking:**
Answers in the examination will be awarded marks in accord with their accuracy, correctness, comprehensiveness, conciseness and relevance to the question asked.

**This assessment item:**
- is a centrally organised activity
- is an individual activity
- does not include a self assessment activity

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# 5.3 Late Submission

**For all non-Honours Dissertation courses:** An assessment item submitted after the due date, without an approved extension, will be penalised. The standard penalty is the reduction of the mark allocated to the assessment item by 5% of the total weighted mark for the assessment item, for each working day that the item is late. A working day will be defined as Monday to Friday. Assessment items submitted more than five working days after the due date will be awarded zero marks. To understand how the mark is reduced please refer to Assessment Procedures for Students.

**For all Honours Dissertation courses:** Enrolment in an Honours degree shall be cancelled and the candidature terminated if the candidate fails to lodge their Honours dissertation by the prescribed date including any approved extensions.

# 5.4 Other Assessment Information

**Supplementary Assessment** is available in this course in accordance with Section 8 of the University Assessment Policy. To achieve a Pass grade for the course a pass mark for the supplementary assessment item must be achieved.

**Final Grades**

A student’s final grade for this course will be based on the aggregation and weighting of marks across assessment, any

mandatory pass components and grade cut-offs. Grade cut-offs can vary, so you will need to wait for the official release of grades to be sure of your grade for this course.

- This course is a graded course (i.e 7, 6, 5, 4, 3, 2, 1).

# 6. Policies & Guidelines

This section contains the details of and links to the most relevant policies and course guidelines. For further details on University Policies please visit the Policy Library

## 6.1 Assessment Related Policies and Guidelines

### University Policies & Guidelines

The University's assessment-related policies can be found in the Griffith Policy Library.

Please refer to the following specific policies:

- Assessment Policy
- Assessment Procedure for Students

## 6.2 Other Policies and Guidelines

### University Policies and Guidelines

Students are responsible for ensuring that they have read all sections of the Course Profile for the course/s in which they are enrolled in any enrolment period. The published online version of the Course Profile is the authoritative version and by the publication of the Course Profile online, the University deems the student has been notified of and read the course requirements. Variations to the Course Profile during the trimester of offer are not permitted except in exceptional circumstances and will be advised in writing to all enrolled students and via the *Learning@Griffith* website. Additional information regarding the content of this course may be published on the *Learning@Griffith* website.

**Copyright matters**

Copyright applies to all teaching materials and materials generated by students which substantially relate to Griffith University courses. *Students are warned against selling Griffith University teaching materials and their student notes online through commercial websites during and after their studies.* You will almost certainly be in breach of copyright law and Griffith's IT Code of Practice if you post these materials on the internet and commercial websites. Please refer to the Copyright Guide for Students for further information.

**Health and Safety**

Griffith University is committed to providing a safe work and study environment. However, all students, staff and visitors have an obligation to ensure the safety of themselves and those whose safety may be affected by their actions. Staff in control of learning activities will ensure as far as reasonably practical, that those activities are safe and that all safety obligations are being met. Students are required to comply with all safety instructions and are requested to report safety concerns to the University.

General health and safety information is available on the Health, Safety and Wellbeing website.

**Other Key Student-Related Policies**

All University policy documents are accessible to students via the Griffith Policy Library and links to key policy documents, in addition to those listed in 6.1 above, are included below for easy reference:

- Student Communications Policy
- Health and Safety Policy
- Student Administration Policy
- Student Charter
- Student Review and Appeals Policy
- Student Review and Appeals Procedures
- Student Complaints Policy