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2020

# BIOS9231 Research Internship in Marine Terrestrial Conservation

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Career 

Postgraduate

Units of credit 

12

Active

Yes

Publication flag 

Yes

Administrative campus

KENS (Sydney)

Academic calendar

3+ Calendar

Primary academic unit 

School of Biological, Earth and Environmental Sciences

Student system ID

057028

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## II. Academic details

Course Name 

Research Internship in Marine Terrestrial Conservation

Course Name (SIMS) 

Res. Intern. Mar.Terrest. Ecol

Career 

Postgraduate

Grading Basis 

Standard UNSW grades (e.g. HD, DN, CR, PS, FL)

Course Offerings 

Offering 1: BIOS9231 (Postgraduate)

Teaching Strategies and Rationale

#### Teaching Strategies:

Teaching strategies will be specific to the student's research project and Academic supervisor.

#### Rationale:

Hands-on conservation-based research is a great way to develop an interest in the scientific process which underpins sound conservation management. The program includes attendance at weekly School seminars to expose students to a broader cross-section of scientific research. The course also uses continual research mentoring and training through one-on-one contact with Academic staff, post-docs, research assistants and postgraduate students in the research group in which the student is interned, as well as through experience in several aspects of scientific research.

## Course Aims

#### The course aims to:

Introduce students to scientific research methods relevant to conservation.

Develop essential research skills in students to improve their capacity to undertake and understand research, and bridge the gap between research and management  
To encourage a multidisciplinary perspective in students, and develop an appreciation for broader scientific research including areas outside those of the students key area of interest

Develop ability to critique scientific research and the way in which it is presented

Provide an opportunity for students to gain a deeper understanding of a topic of interest to them

## Course Description

This course provides training in the basic skills required for conservation research, through internship within a research group in the School of Biological Earth and Environmental Sciences. The internship will provide intensive, hands on training in aspects of scientific research relevant to conservation, combining some or all of the following elements: a) experimental design b) literature searches c) field and lab techniques d) data analysis and modeling e) scientific writing  
Assessment is based on attendance in the lab and field, development of analytical and presentation skills, and a substantial literature review. The review topic will be selected by the student in consultation with the Course Authority, and will cover a conservation topic relevant to the research group, or a species or ecosystem the research group is studying. A list of potential projects and supervisors can be obtained through the Course Authority after enrolments for S2 open. Each student must develop their own program in consultation and collaboration with the Academic supervisor, ideally involving exposure to a broad cross-section of the elements involved in scientific research. This could include interaction with municipal and state government, community groups and appropriate industry bodies for possible projects. The program includes compulsory attendance at weekly school seminars, and a limited number of classes aimed at developing research skills.

## III. Delivery

**Delivery Mode**  

Not specified

**Indicative Contact Hours**   

20.00

**Main Teaching Activity Type**

Directed Research

**Additional information about the teaching activities for this course**

Not specified

**Recommended for General Education**  

No

**Course Authority**

Not specified

**Course Convenors**

Not specified

**Does this course have an administrative contact?**

No

### Prescribed resources

**BOOK**

## Writing scientific research articles: Strategies and steps

### Author(s)

Margaret Cargill and Patrick O'Connor

### Publisher

Wiley Blackwell

### Edition

2009

### Additional details

Either this book or the other Writing Skills book is required.

### Recommended resources

**BOOK**

## Successful scientific writing: A step-by- step guide for the biological and medical sciences

### Author(s)

Janice Matthews and Robert Matthews

### Publisher

Cambridge University Press

### Year

2008

### Edition

3rd

### Additional details

Either this book or the other Writing Skills book is required.

**BOOK**

## Writing for Science and Engineering: Papers, Presentations, and Reports

**Author(s)**  
Heather Silyn-Roberts  
**Publisher**  
Elsevier  
**Year**  
2000

**Additional details**  
For Presentations Skills

## IV. Outcomes and Assessments

### Learning outcomes

1

Undertake conservation-based research, including the ability to frame questions and hypotheses, and develop and implement an experimental design to address/test them

2

Effectively present research to a science audience, through presentation and literature

3

Demonstrate the basic quantitative skills used to test hypotheses, and be able to critically evaluate the

power of analyses and conclusions in the scientific literature

## 4

Critically appraise both scientific research and the way in which it is presented

# Assessments

## 1

### Scientific seminars report

Report (10%)

Throughout their internship, students are required to regularly attend research seminars hosted by the school of BEES. The purpose of attending these seminars is to expose students to a range of scientific ideas, and so that students become familiar with the range of different methods and approaches to biological study. Attendance will also show students how scientists communicate their research to other scientists, which is an important part of biological research.

To demonstrate their comprehension of the research presented, students are required to write a short summary of three of the seminars. This assesses student understanding of the topic, their ability to synthesise and summarise information, and their understanding of the broader implications of the research presented.

Feedback (comments and marks) is provided to students within 2 weeks of submission.

Critically appraise both scientific research and the way in which it is presented

## 2

### Project Literature Review Abstract

Report (10%)

Students are required to submit a summary of their proposed project in the form of an abstract early in the term. This task ensures that students have undertaken appropriate readings and planning for their project to ensure successful completion of the project by the end of the term. They also receive early feedback on their ideas and project plan from their academic supervisor.

Undertake conservation-based research, including the ability to frame questions and hypotheses, and develop and implement an experimental design to address/test them

Effectively present research to a science audience, through presentation and literature

Demonstrate the basic quantitative skills used to test hypotheses, and be able to critically evaluate the power of analyses and conclusions in the scientific literature

Critically appraise both scientific research and the way in which it is presented

### 3

#### Research Seminar

##### Presentation (10%)

Students present the findings of their independent project in a short conference-style seminar. The aim is to educate a scientific audience on their research project and their major findings. The presentation should include background information on the project, the specific hypotheses the student aimed to test, the methods used to test the hypotheses, plus results and their interpretation. Marks and comments from academic staff within the school will be provided to the student.

Undertake conservation-based research, including the ability to frame questions and hypotheses, and develop and implement an experimental design to address/test them

Effectively present research to a science audience, through presentation and literature

Demonstrate the basic quantitative skills used to test hypotheses, and be able to critically evaluate the power of analyses and conclusions in the scientific literature

Critically appraise both scientific research and the way in which it is presented

### 4

#### Major Research Report

##### Other (70%)

Throughout the term, students will work in conjunction with their academic supervisor to complete an independent research project. This is a substantive task and takes up a majority of the work for this course. The research project can either take the form of an empirical research or quantitative project, or a literature review. This will depend on the research interests of the student. In this exercise, students will gain experience in carrying out independent research, including the formulation of their own hypotheses and sampling designs, data collection, analysis, and interpretation, and communication of results. At the end of the term, students are required to summarise their findings in a report in the form of a scientific journal article. Marks and comments from academic staff within the school will be provided to the student.

Undertake conservation-based research, including the ability to frame questions and hypotheses, and develop and implement an experimental design to address/test them

Effectively present research to a science audience, through presentation and literature

Demonstrate the basic quantitative skills used to test hypotheses, and be able to critically evaluate the power of analyses and conclusions in the scientific literature

Critically appraise both scientific research and the way in which it is presented

### **Assessments Total Weight**

100%

# **V. Conditions of Enrolment**



Changes to this form section for 2020 are not possible due to the following:

- The early editing deadline has now passed and there are no fields in this section that are still available for editing for 2020

### **Prerequisite courses**

Not specified

### **Prerequisite programs**

Not specified

### **Prerequisite specialisations**

Not specified

### **Prerequisite conditions**

Not specified

### **Excluded courses**

Not specified

### **Excluded programs**

Not specified

### **Excluded specialisations**

Not specified

### **Equivalent courses**

Not specified

## VI. Systems

Course Code 

BIOS 9231

Link to Course Outline 

BIOS9231 Course Outline:  
<http://www.bees.unsw.edu.au/>  
(<http://www.bees.unsw.edu.au/>)

Key search terms for this course 

Biology

Primary area of interest category 

Natural and Physical Sciences

## VII. Resourcing

**Additional Expenses and Required Resources**

Not specified

### Field of Education (FOE)

*Field of Education (FOE) is a classification used by the commonwealth government to describe and classify higher education programs, specialisations and courses Australia-wide, in a reliable and consistent manner for data collection and analysis purposes. The FOE code must remain consistent within the same calendar year and is reported annually. Please consult HEIMSHelp website (<https://heimshelp.education.gov.au/resources/field-of-education-types>) for the list of available codes.*

**Important:** *Due to government reporting and fee implications, revisions to Field of Education codes at course level can be approved in AIMS at any time and will be effective from the next reportable calendar year. Note: broad level field of education codes are not available for courses.*

Ecology and Evolution (010905)

## Teaching shares

Faculty / School	Share
School of Biological, Earth and Environmental Sciences	100.00%
<b>Total teaching shares</b>	<b>100.00%</b>

