



CIEE Perth, Australia

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| Course title: | Independent Field Research Project |
| Course code: | BIOL 3003 PEAU |
| Programs offering course: | Biology and Ecology Field Studies |
| Language of instruction: | English |
| U.S. semester credits: | 4 |
| Contact hours: | 60 |
| Term: | Spring 2020 |

Course Description

Students carry out a project on a topic of their choice in one of the available subject areas or another subject matter accepted by the instructor/advisors. The project initiates with a research proposal and culminates in a research paper that will be published in the CIEE journal *Barna: Journal of Student Initiated Field Research*. Students learn the basic elements of the research process: finding a topic, formulating a research question, seeking answers using the appropriate field and laboratory research methods, verbalizing research results, presenting scientific research in a public forum, and publishing a scientific paper in a student journal.

Learning Objectives

By completing this course, students will:

- To develop a working knowledge of relevant research literature
- To design and conduct an independent research project under the direction of a supervisor
- To develop experience with experimental techniques
- To practice writing proposals and scientific papers
- To learn to present data and other information in tables and figures
- To experience publication of a scientific paper
- To be able to discuss the research topic with the public and experts in the field
- To take responsibility for the success of the project, including major assignments (proposal, final paper, public presentations, publication of the journal)

Course Prerequisites

This unit is aimed at students majoring in marine biology, ecology, wildlife biology, biology, zoology, conservation, or other natural resource programs. • Overall GPA 2.75 • 2 semesters of college-level biology required • Upper-level coursework in marine biology and/or ecology and/or zoology recommended

Methods of Instruction

Course meetings

- The course includes lectures and workshops on planning, conducting, analyzing, presenting and writing ecological research.
- Supervisor meetings will be scheduled on a regular basis.
- Students need to bring your field notebook to the meetings.

Expectations



- Students will develop (with guidance) a formal research project proposal at the beginning of the course that will provide the basis for their project including the purpose of the research, an outline of the experimental strategy and data analysis plans.
- Students are expected to relate research progress, relevant readings, and challenges in weekly meetings and classes.
- Students will need to be self-motivated and to work independently.
- Students will be engaged in regular communication with their supervisor for guidance.
- Students will take primary responsibility for conducting research and do so with professional attitudes and time commitments.
- Students will produce a manuscript (with feedback from supervisors) that can be published in the CIEE research journal. Publishable manuscripts require many drafts, reviews, and revisions. If the grade on a final paper is below a C the paper will not be included in the journal.

Academic Honesty

Students are expected to adhere to CIEE's Academic Honesty Policy. Students found violating the conditions of academic honesty are subject to receiving a "F" for the course. The violation will also be reported to the Academic Coordinator for the CIEE Office, Dr. Kate Rodger, and may be documented on your permanent record at your home institution.

Assignments

Submit assignments via Canvas. Electronic assignments should have the student name and the assignment included in the filename (e.g. John_Doe_Research_Proposal.doc). Unless instructed otherwise, assignments must be done individually. Assignments that are turned in late will be penalized with a 10% reduction per day, i.e. an assignment turned in one day late will be graded out of 90%.

Grading

All assessable components in the unit must be attempted. To pass the unit you need to achieve an overall mark of at least 50%.

Assessment and Final Grade

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| 1. Research Proposal Including Time Line & Annotated Bibliography | 15% |
| 2. Organization of Field/Lab Notebook & Data Files | 10% |
| 3. Presentation of Hypotheses & Methods (In Class) | 10% |
| 4. Poster & 2-minute Presentation | 25% |
| 5. Journal Publication | 30% |
| 6. Participation | 10% |
| TOTAL | 100% |

Course Requirements

Research Proposal Including Time Line & Annotated Bibliography

Students will submit a Research Proposal form, which will include an annotated bibliography and time line. The annotated bibliography will include five sources relevant to your research. You need to give a brief summary of content and a short analysis and evaluation of each source.

Organization of Field/Lab Notebook & Data Files



Organised and detailed field/lab notebooks and data sheets are important for field work. This assessment will examine the structure of your work; the accountability - ability to understand what, when, how, why, by who was done to the data/analysis/results and data quality / accuracy.

Presentation of Hypotheses & Methods (In Class)

You will present the hypothesis and methods for your proposed project at Ningaloo to the class for discussion.

Poster & 2-minute Presentation

Posters are a very effective form for presenting research findings, and are an important part of conferences. Successful posters provide the key information in a highly abbreviated yet informative way, and a graphically attractive style. In this assessment you will prepare and present a poster on your independent research project.

This assessment is made up of two parts:

1. A2 sized poster.
2. 2 minute poster presentation.

Your poster should be prepared using a suitable computer package (e.g. Powerpoint). It will be a single slide from Powerpoint or one page from a desktop publishing application or text/graphics utility. CIEE will organise the printing of your poster. We will need to have it 24 hours prior to the Poster Presentation workshop. Students will have **two minutes** to present their poster to the audience who will grade their work. You will not be permitted to exceed two minutes. The audience will then ask questions of the student arising from either their poster or their oral presentation. You are expected to speak freely and not read from notes. Assessment will be based on the poster's appearance and content as well as your presentation and ability to answer questions.

Journal Publication

This is the major assessment for this course. Your research is to be written up in journal style format and, if up to standard, will be published in the Perth CIEE journal.

Participation

Participation throughout the course and engagement with field work will be assessed. Students will be graded upon:

- Attitude
- Willingness to help other students
- Commitment to deliver high quality work
- Ability to learn and adapt
- Openness to learning
- Contributing to open discussions

Attendance



Students are required to attend all meetings and activities. Students are expected to arrive on time and participate in all discussions, workshops, activities, and fieldtrips.

Course schedule is subject to change due to study tours, excursions, and local holidays. Final schedules will be included in the final syllabus provided to students on site.

Weekly Schedule

Week 1

Class Introduction Lecture

Reading: Creswell, J. (2003) *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. Sage Publications, London. Chapter 1 & 2.

**Assessment 1 due*

Week 2

Class Field work/meetings with supervisor

Week 3

Class Field work/meetings with supervisors

**Assessment 2 due*

Week 4

Class Meetings with supervisors & data analysis

**Assessment 3 due & Assessment 4 due*

Week 5

Class End of Semester

**Assessment 5 due*

Course Materials

Readings

Creswell, J. (2003) *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. Sage Publications, London. Chapter 1 & 2

Online Resources

As CIEE students you will all be able to access ProQuest, an online research database. To access this you need to use the following URL which is specific to our Proquest account:

<http://search.proquest.com/?accountid=31480>



Username: cieersearch

Password: studyabroad