

UNIVERSITY OF STIRLING
BIOLOGICAL AND ENVIRONMENTAL SCIENCE
BIOU9PR, ENVU9PR, GEOU9PR HONOURS PROJECT
SEMESTERS 7&8
2019/20

Module Coordinator: Dr Armando Marino

Contributing Staff: All BES academic staff supervise projects.

Course objectives:

- ✓ To carry out an original piece of scientific research;
- ✓ To put into practice some of the skills gained during the programme study to work on a research topic;
- ✓ To develop a critical appreciation of key concepts through research, presentations and the scientific literature.

Intended Learning Outcomes (ILOs):

By the end of the Honours Project students should be able to:

- 1) Critically analyse scientific evidence and arguments from the peer-reviewed literature relevant to their research project;
- 2) Analyse, interpret and present data;
- 3) Produce a concise and structured dissertation;
- 4) Independently manage their time and workload effectively;
- 5) Summarise their project to a lay audience.

Acquired skills:

This will vary from project to project but students are expected to develop the skills necessary to work independently on their data collection.

Teaching programme:

You will work under the supervision of a member of academic staff and perhaps as part of the supervisor's research group. You should conduct extensive background reading (literature review) relevant to your project.

Teaching timetable:

There are no lectures or tutorials, although there are 5 information and Q&A sessions schedules in Autumn and Spring semesters (please read the Point of Contact session for more information).

The timetable for the sessions schedule so far is the following:

Session	Date	Room
Introduction	18 th March 11:00 to 12:00	A3
Q&A	17 th September 10:00 to 11:00	W1
PoC (Ethics and RA)	24 th September 10:00 to 11:00	W1
Q&A	12 th November 10:00 to 11:00	W1

You must contact your supervisor before the end of semester 6 (Summer before starting the final year). Do not assume your supervisor will contact you! The initial meeting with your supervisor must take place before the end of September (Point of Contact). After discussion of your project aims, objectives and methods you must complete the University's Ethics procedure and a risk assessment (please see info in BES Ethical Approval Guidance.docx).

Expectations of students:

You should spend a total of 600 hours working on your project from starting to submission of the completed dissertation. It is essential that you manage your time effectively to cope with data collection, reading for your Honours project and also ensuring that coursework for other modules is completed on time.

Your supervisor will help set task/checkpoints with deadlines throughout your project, although it is your responsibility to organise your time effectively. Failure to manage workload and ending up with a clash of project work and other module coursework is not sufficient reason for extensions to deadlines. Your supervisor will note your progress throughout the project and your ability to complete the tasks/reach the checkpoints within the set time.

If a student fails to engage with one or more Points of Contact, the module coordinator and potentially also the student's Personal Tutor will contact the student to ascertain the reason for this and encourage greater engagement.

Format and length of your dissertation:

The completed dissertation should be no more than 10,000 words (not including abstract, figures, tables and references). The precise length of your dissertation will be determined by how many words it takes you to: introduce your aims and objectives; set out satisfactorily the background context; describe and explain the methods; describe and present the results; provide in-depth discussion of the results; provide a synthesis with previous research; conclude the project in a clear and concise manner. Please discuss your text with your supervisor for more guidance. Please note that although you may have spent 100s of hours collecting excellent data if the dissertation is poorly written then it will not achieve a satisfactory grade.

Dissertation text should be double line spaced, in Times New Roman font size 12, with normal 2.54cm margins, and contain page numbers. Please consult your supervisor for any additional guidance specific to your project. Supervisors may read and provide feedback on one complete draft of your project. Please provide an electronic draft of your project to your supervisor at least 2 weeks before the deadline; this should be discussed with your supervisor to determine a suitable draft copy

deadline. Supervisors will give electronic feedback as a separate document/email, or as track changes/comments in the document.

Further useful guidance on writing a dissertation and referencing is provided by the University of Stirling Library Services. Please make sure you have read and understood this guidance:
<http://www.stir.ac.uk/is/student/writing/>

The required format for your title page and second page are in the following.



[Student Name Here]

[Dissertation Title Here]

[Photo Relevant to the Project Here]

Undergraduate dissertation submitted for the degree of
[Insert programme title here]

Biological & Environmental Sciences

University of Stirling

April [YEAR]

"I understand the nature of plagiarism and am aware of the University's policy. I confirm that this dissertation is my own work. I confirm that I received any required ethical approval."

Signature_____ Date _____

Compulsory Assessments

Projects on this modules will be worth 60 credits. Each written component will be double marked with a single agreed grade awarded per component. Written assignments must be submitted in PDF (portable document format).

Weighting (%)	Assignment Details	ILOs	Submission Deadline
Formative feedback	Research Plan (Please submit via email to your supervisor as a PDF)	-	Noon – Fri 27th Sept 2019
Formative feedback	Introduction (1st chapter of thesis) Please submit via email to your supervisor as a PDF	-	Noon - Mon 18th Nov 2019
90	Main thesis report Please submit via CANVAS as a PDF	1,2,3,4	Noon - Mon 6 April 2020
10	A talk (8 mins + 2 mins questions) or A video (5 minutes max) The video should be uploaded to the BOX. Please ensure the movie uses WMV, AVI, MOV, or MP4 format. The URL should be shared with the supervisor, and the link uploaded to CANVAS.	2,5	Noon - Mon 20 April 2020

Formative Assessments

A. Research Plan

The research plan will assess the student's ability to plan a research project, from data collection to analysis, including referencing key related articles. The research plan should be completed in the Autumn Semester and will be formatively assessed. Below is an example of a research plan, however you should discuss with your supervisor to determine a suitable layout for your topic/project.

1. Introduction

Quickly introduce the topic and explain why this topic is worth studying. Specify the objectives of the research.

2. Research question

Formulate the research problem and related research questions giving as much detail as possible

3. Research Methodology

Outline what methods you will employ to answer the research questions, what data are required and how they will be collected / cleaned / analysed. Describe the methods you intend to use.

4. Outputs

Outline what new information your project is expected to produce and how this will be useful.

5. Consider ethical matters

Which ethics committee do you need to submit to?

6. Timetable of Planned work

Include a timetable with milestones and a simple GANTT chart

7. Summary of Resources Required

Specify the requirements in terms of lab equipment, data, hardware, software etc.

8. Work completed

If you already worked on the project, outline what has been done (e.g. preparation of ethics forms, summer field work, code development, test data collections, sourcing of data)

9. References

Make sure you reference your text following good practice.

B. Chapter 1 - Introduction

The "introduction" chapter should include an overview of the context of the research area, highlight the importance of the work, and include the research aims and objectives. It should also include a comprehensive coverage of the relevant literature.

This should be submitted to your supervisor for formative feedback (i.e. feedback, but not marked). The length of the chapter will vary depending on your topic, so discuss the word limit with your supervisor. Please send a copy of the chapter by email to your supervisor, rather than via Canvas, as a PDF.

Summative assessment

Talk/Video:

In this assessment, you will either:

- 1) give a short talk and answer questions on your research, or
- 2) make a high quality video which outlines your project and the science involved.

NOTE: The timing of talks will be arranged by the supervisor in conjunction with yourself. Possibly it will also be linked together with other supervisors. Please be proactive and do not expect the supervisor to organise this for you.

The written dissertation:

The final report should be written in the form of a scientific thesis. All theses will be second marked. The following assessments will be made by your supervisor and allocated second marker:

- Abstract: concise and accurate summary of the project
- Introduction: work placed in appropriate context; clear aims and hypotheses; comprehensive coverage of the relevant literature
- Methods: able to replicate experiment from description; techniques explained and understood; appropriate design to test stated hypotheses
- Results: appropriate methodologies (e.g. statistical tests) carried out; results effectively described to the reader highlighting relationships between variables; results presented clearly and in a logical order with appropriate figures and tables correctly captioned and labelled
- Discussion: clear interpretation that follows logically from the results; results discussed in wider context with reference to relevant literature; critical and thoughtful analysis showing clear insight and originality; logical suggestions for future research
- Conclusion: a concise reflection of the achievements of the project
- Presentation and structure: clear layout, well-structured with good English and grammar.

N.B Anonymous marking is NOT possible for this module.

Submission

Dissertation submission:

You must submit an electronic version of your thesis via Canvas as a PDF with all figures, tables, references included by **noon Fri 4th April 2019**.

Please note that only an electronic submission is required (no hard copy) – and that this must be as a single PDF. It is your responsibility to check the PDF is correctly formatted and includes all figures, tables, and references.

If you wish to request an extension for your project, please send the request form to your supervisor not the module coordinator.

The talk/video must be completed by 12:00pm (noon) on Monday 20 April 2019 uploaded to BOX and the URL shared with your supervisor (email) and added to CANVAS.

Notes:

- ✓ Do not include a BES coversheet for the main thesis.
- ✓ Markers compile a list of comments to justify the grade given for the External Examiners that independently review all Honours courses and grades at the summer Exam Board.
- ✓ Academic staff do not write comments on the dissertation. If students wish to receive feedback about their dissertation, they should contact their supervisor. There will be an embargo on feedback until after the Exam Board meeting.

Points of Contact:

For this module, the Points of Contact are:

- 1) Initial Meeting with Supervisor (by the 27th September 2018)
- 2) Lecture in Week 3 Autumn semester (24th September).
- 3) Submission of draft Introduction chapter (for formative feedback)
- 4) Main Dissertation submission
- 5) Talk/Video

Failure to attend a meeting with your supervisor by the end of September will result in your Programme Director being notified.