THE HONOURS DISSERTATION A GUIDE FOR STUDENTS AND SUPERVISORS

Department of Biology Memorial University

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Approved by Faculty Mtg March 29, 2023 **BIOLOGY 499A and 499B, THE HONOURS DISSERTATION COURSES: A GUIDE FOR STUDENTS AND SUPERVISORS**

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These guidelines are intended to help both students and supervisors in the production of an honours dissertation. It is strongly recommended that these guidelines be closely followed. Failure to do so may result in either an unacceptable dissertation or a dissertation that requires such extensive changes that timely graduation becomes impossible.

GENERAL SUMMARY

All candidates for the Honours B.Sc. in Biology must take both Biology 499A and 499B. In these courses the student undertakes an independent field or laboratory research project under the guidance of a supervisor. Usually, but not necessarily, the supervisor will be a faculty member of the Department of Biology. In the event that the primary supervisor is outside the Department of Biology, it is necessary for the student to have a co-supervisor from within Biology department. To register for 499A students must meet the criteria as set out in the University Calendar. To register for 499B candidates must submit written evidence of satisfactory progress in 499A and pass 499A. Students in 499B should normally be in the final semester of their program. Normally students enroll in 499A and 499B in consecutive semesters; if a student wishes to have a gap semester between 499A and 499B they should speak to the Biology APO as soon as possible with a rationale for why the gap is warranted. Allowance for a gap semester between completion of 499A and 499B must be approved by the department. At the end of 499B all candidates must submit and publicly defend a dissertation embodying the results of their studies. Following the public defense the candidate will be awarded a Pass or a Fail. If a Pass is awarded, it may be contingent upon changes to the dissertation.

SUMMARY OF SIGNIFICANT EVENTS FOR THE STUDENT (see flowchart in Figure 1 for a visual summary)

- 1) Apply to enter Honours program (apply directly to the Biology Department, to the attention of the Biology Academic Program Officer (APO)).
- 2) At the same time (or before) start finding a supervisor and a dissertation topic.
- 3) If you meet (or could meet) the criteria, the Biology Department will provisionally accept you.
- 4) Your supervisor must sign the <u>provisional acceptance form</u> before you are fully accepted; this form is provided in the email from the Biology APO.
- 5) Register for Biology 499A in any of the three semesters, usually the penultimate one. Ensure our APO is aware of which semester you wish to begin your dissertation work (and enroll in Biology 499A).
- 6) At the end of 499A write a brief report outlining what you have done and explain how the work done will enable you to complete 499B in a timely fashion.
- 7) Your report from 499A will be evaluated by your supervisor and the Head of Department and on the basis of that evaluation you may (or may not) be allowed to register for 499B. A digital file of report (in PDF format) and Form (Appendix A), signed by your supervisor (and co-supervisor, if applicable), must be submitted to the both the Secretary for the Head

- of the Biology Department and the Deputy Head of Biology (Undergraduate) by the last day of classes.
- 8) Electronically submit a finished dissertation and form (Appendix B) to the Head of Department no later than two weeks before the last day of classes for the semester in which you are registered.
- 9) Publicly defend your dissertation, make any required corrections, and if a "Pass" is awarded submit a corrected PDF file of the Dissertation to the Head of the Department.
- 10) The final PDF file of your dissertation must be received by the Biology Department before your final grade for 499B can be sent to the Registrar.

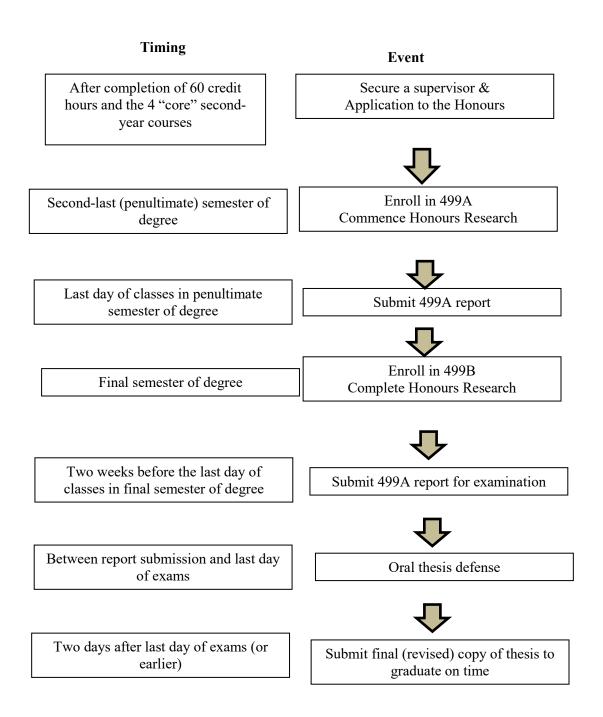


Figure 1. Flow chart showing timing and key steps in the Biology Honours Program

RESPONSIBILITIES OF THE SUPERVISOR

- Meet with the student in the semester before they enroll in 499A to discuss the research project
- Ensure the student has appropriate safety training (field, lab safety) and training on equipment
- During 499A, supervise the research project (this can be delegating in part to senior graduate students and/or post docs in the lab, but the supervisor bears ultimate responsibility for the research project)
- Ensure that the student competes the 499A report by the last day of the semester in which they are enrolled
- Evaluate the 499A report
- Supervise the student during the 499B semester; ensure the student hands in drafts of the thesis in a timely manner to ensure review/revision time prior to final submission
- Ensure that the student submits the thesis for examination by 2 weeks before the last day of the semester
- Recruit a suitable colleague (normally within Biology or cognate unit at Memorial) to be the examiner, and schedule a date/time for the oral defense that is amenable to the student, the examiner and the supervisor
- Notify the Biology Head's Secretary of the date, name of student, name of examiner; the Head's Secretary will find a chair, book a room and advertise the defense.
- Attend the defense and evaluate the final thesis
- Review the revised thesis before final submission

PURPOSE

The purpose of researching, writing and defending a dissertation is to give students an opportunity to personally conduct original research, to learn methods and techniques, to organize and analyse data and ideas, to communicate ideas clearly and to make the methods and results of the research accessible to others. The Honours dissertation is valuable to students entering any professional field, not just to those heading for graduate school in the biological sciences.

APPLYING FOR ADMISSION TO THE HONOURS PROGRAM

Students may apply to enter the Honours Program no sooner than the start of their second year as a Biology Major (which is normally the third year of university studies or their fifth semester at university; after completion of 60 credit hours and the 4 "core" second-year courses as outlined in the recommended schedule). Students should fill out the application form and submit to Biology's APO after which the student's record is checked. If the student meets (or could possibly meet in the future) the criteria as set out below, an e-mail is sent to the student giving provisional acceptance to the Honours program. Included with this e-mail of provisional acceptance will be a form to be signed by the student's supervisor. Only when this form, signed by the supervisor(s), is received by the Biology Department (APO), will the student be fully accepted into the Honours program (at which time the Biology APO sends a request to the Registrar's Office to have the student's program formally changed in Banner). The form to be signed by the supervisor is only valid for one year from the date of issue. If the student has not found a supervisor within that year the student must re-apply to enter the Honours program.

CRITERIA TO ENTER THE HONOURS PROGRAM

Detailed criteria are set out in the University Calendar. The significant differences between the General and the Honours degree are the number of Biology courses required and the grades and grade point average that must be achieved.

The academic standing required for an Honours is a grade of "B" or better, OR an average of 75% or higher (whichever is to the candidate's advantage) in the Major subjects (i.e., the 19 Biology courses prescribed for the major, excluding the 1000-level courses and 499A/B (no numeric grade assigned), and an average of at least 2.75 points on the total number of courses required for the degree.

Students must successfully complete a total of 40 courses (120 credit hours) including all the CRW, Mathematics, Statistics, Chemistry, Physics and Biochemistry courses required of all Biology majors.

In the Honours program, students must take a total of 23 Biology courses (including two at first year and the two dissertation courses 499A and 499B), and achieve a grade of at least a "B" (or 75% average) in each of these (except first year). Students must also achieve an overall Grade Point Average of at least 2.75 on the total (i.e. 40 courses or 120 credit hours) required for the degree.

With special permission, it is possible to repeat or substitute Biology courses where the student achieved less than a "B", but **no more than three** such repeats or substitutions are allowed. Such permission must be requested by the student in writing to the Head of the Biology Department.

It is permissible to take extra courses above the minimum 40 (120 credit hours) required in order to bring the GPA of the best 40 (120 credit hours) up to the required level.

FINDING A SUPERVISOR AND A TOPIC

Before looking for a supervisor and a topic, students should prepare a brief C.V., a transcript and a cover letter that provides your background and areas of interest.

The supervisor will normally be a faculty member of the Biology Department. However, faculty from other University Departments may also be supervisors of Biology students where the dissertation topic warrants. Examples are faculty members from Biochemistry, Earth Sciences, Psychology, Medicine or Ocean Sciences. In addition, research scientists working with a government agency such as the Department of Fisheries and Oceans, Wildlife or Agriculture may also act as supervisors. In cases where a supervisor is external to the Biology Department (either within the University or not) a co-supervisor from within the Biology Department must be chosen or assigned.

Students are responsible for making the initial approaches to potential supervisors and for having some general ideas for dissertation topic areas. There is no single way of finding a supervisor and a topic, but usually one (or a combination) of the following routes is employed:

- a. Talking to people. Ask your instructors (faculty, laboratory instructors, instructional assistants, graduate student demonstrators).
- b. Students with definite ideas of the area in which they wish to work should directly contact faculty (or other scientists) in that area. Anyone uncertain of the appropriate person to act as a supervisor should ask their faculty advisor or the Deputy Head (Undergraduate).
- c. Students who wish to work with a particular supervisor should approach that person directly.

Because of their greater experience in evaluating possible projects in terms of time and money, the final design of dissertation projects and whether to supervise them is up to the faculty members involved.

WHAT IS AN APPROPRIATE DISSERTATION TOPIC?

The spirit of Biology 499A/B is that students directly and personally conduct some original research that generates data, usually from the basis of one or more testable hypotheses.

If it is anticipated that your work may be suitable for publication, either by itself or as part of a larger paper in a refereed journal, then supervisors should discuss intellectual property issues with students, at the earliest possible stage of their programs, including any potential joint authorship that might arise from their research and any joint ownership of data or patents; supervisors should also make sure they adequately acknowledge any student contributions to material they publish. This research may be based in the field or in the laboratory or in both.

For reference, previous honours dissertations can be found at the Centre for Newfoundland Studies in the QEII Library.

HOW MUCH WORK IS INVOLVED?

The amount of work involved in either 499A or 499B is intended to be similar to other senior level courses. As an approximate guide this is taken to be about 12 hours per week per course, or about 160 hours per course (= about 320 total for 499A and 499B combined). The onus is on supervisors to select, define or refine research topics so that they will require no more work than indicated above. Supervisors should bear in mind that these courses are part of an undergraduate program and should avoid the temptation to demand graduate-level work from the student.

WHO PAYS FOR THE DISSERTATION RESEARCH?

The Biology Department does not directly fund Honours students. It is expected that Supervisors will cover any costs of Honours research out of their own research and/or operating grants.

REQUIREMENTS FOR REGISTRATION IN BIOLOGY 499A

- 1. Approved candidates should consider a possible dissertation topic and must confirm a supervisor before registering for Biology 499A. Students normally register for Biology 499A by their penultimate semester.
- 2. Any student whose application for Honours has been fully (not merely provisionally) accepted by the Biology Department may register for Biology 499A. Candidates registered for Biology 499A must meet with their supervisors as soon as possible to discuss the dissertation and to seek advice on appropriate courses to take.
- 3. Registration for Biology 499A is done by completing a course change form.

REQUIREMENTS FOR SUCCESSFUL COMPLETION OF BIOLOGY 499A

Awarding a grade (Pass/Fail) for 499A will be primarily on the basis of a progress report written by the student. At the end of 499A each student must submit a written report (approximately 10 pages) by the last day of classes to the Head of Department outlining the progress made during 499A and a **timetable** for how the dissertation will be completed in a timely fashion during 499B. This report should ideally contain a summary of a literature survey, an introduction to the research question, outlining hypothesis and prediction and a methods section outlining techniques learned and methods employed, a summary of data gathered so far, and/or some preliminary data analysis and a reference list. The content of this report should be discussed with your supervisor.

NOTE: The form (Appendix A) must be signed by the supervisor (and co-supervisor, if appropriate) and attached to the report before it is submitted to the Head of the Department.

The spirit of this report is to ensure that the student has been active while registered for 499A and that this activity can reasonably be expected to result in the timely submission of the dissertation at the end of 499B. Only when the supervisor and Head of Department are satisfied that this is the case will a "PASS" be awarded for 499A.

If the supervisor and Head are not satisfied with the progress made by the student in 499A there are two options open to them. First, they may award a "FAIL" grade. Second, they may award a "PASS" despite the lack of progress in 499A on the understanding (given in writing to the student) that registration for 499B will be denied until the candidate has completed further work (while not registered for either 499A or 499B; i.e., in an intervening semester) and resubmitted the report of activities to the supervisor and Head (See item 4 under "Requirements for registration in Biology 499B, below").

Note that the usual regulations for awarding an "INCOMPLETE" ("INC") grade apply to 499A. That is, the student must supply written documentation of extenuating circumstances. In such cases, students must complete and submit their reports such that a grade can be awarded before the end of the first week of classes of the semester immediately following the one in which they were registered for 499A. Further extenuating circumstances, properly documented, may make students eligible for an extension of the "INCOMPLETE" until the end of the semester immediately following the one in which they were registered for 499A.

REQUIREMENTS FOR REGISTRATION IN BIOLOGY 499B

- 1. Sufficient progress in 499A (documented in the student report from 499A) to warrant admission to 499B.
- 2. A "**PASS**" in 499A.
- 3. In addition to both the "PASS" in 499A and the documented progress in 499A, written confirmation from the supervisor that the student can reasonably be expected to complete 499B without undue difficulty in the semester in which the student intends to register for 499B.
- 4. In cases where a "PASS" has been awarded in 499A, but where there is a lack of progress

in 499A (as shown by the student report), a supervisor will normally decline to accept a student immediately into 499B. In such cases the student may not register for 499B and must either drop out of the Honours program or work on their own time (and at their own expense and in their own space as applicable) to submit a second report in time for the next semester. Note that supervisors of students who have not shown sufficient progress in 499A may decline to provide space, money or facilities as applicable that would facilitate the student's preparation for a second (or more) attempt to enter 499B.

- 5. In cases where there has been a lack of progress in 499A (as shown by the student report) a supervisor may nevertheless be prepared to accept the student into 499B. In such cases, the supervisor must fully justify this decision in writing to the Head. This justification must in part contain an acknowledgement that the supervisor is assuming responsibility for the student's timely progress through 499B.
- 6. Permission of the Head, who will base their decision on evidence of whether or not the above requirements (1-5) have been met.

REQUIREMENTS FOR SUCCESSFUL COMPLETION OF BIOLOGY 499B

- 1. A substantially complete draft of the dissertation should be submitted to the supervisor 6 weeks before the last day of classes for that semester and revisions made before formal submission of the finished dissertation.
- 2. Formal submission of the dissertation to the Department. Formal submission consists of submitting a PDF file of the dissertation to the Head of Department 14 days before the last day of classes in the semester in which the student is registered for 499B and the completed form (Appendix B) signed by the supervisor (and co-supervisor, if appropriate). (Note: This is not the same submission date as 499A)
- 2.a **If students meet this deadline,** the Department undertakes to process the dissertation in time for the student to graduate at the convocation immediately following the semester in which the student was registered for 499B.
- 2.b If students do not meet this deadline, but submit their dissertations before the last day of examinations in the semester concerned, the Department will still process the dissertation but cannot guarantee that the student will be able to graduate in a timely fashion. The Department (as represented by the Chair of the oral defence and the examiner) has the right to insist on having at least five working days between the day of receiving a copy of the dissertation and the day of the oral defence.
- 2.c If students wish to submit their dissertations after the last day for examinations in the semester concerned, then the usual regulations apply. That is, an "INCOMPLETE" may be awarded by the supervisor if the circumstances are sufficiently extenuating. In such cases students must submit their dissertations at a time such that the final grade can be submitted to the Registrar's Office on or before the end of the first week of classes in the immediately following semester. Note that "INCOMPLETE" may be granted only under exceptional circumstances documented in writing and subject to the same conditions as the deferral of final examinations.

- 3. The dissertation must be in acceptable format, based on the guidelines given in this book, and norms for the research sub-discipline. A well-written BSc (Hons.) dissertation will normally be written in a scientific style (Introduction, Methods, Results, Discussion and include supporting references, figures, tables and appendices). Length will vary based on the research project, and sub-disciplinary norms, but text of an Honours dissertation (exclusive of figures, tables, references, appendices) can normally range from 20-60 pages. Excessive length may imply a poor writing style or an unfocussed topic.
- 4. A public, oral defence of the dissertation must take place as set out in "The Oral Defence of the Dissertation".
- 5. Any required corrections must be made (see "The Oral Defence of the Dissertation").
- 6. One electronic PDF file of the finished dissertation must be submitted to the Head of Department who will forward one copy to the University Library (see **Final Submission to the Department of Copies**).

EXAMINATION OF THE DISSERTATION

The formal examination of the dissertation is an oral defence and the decision to award either a "PASS" or "FAIL" (or to defer such a decision) is made at the end of that oral defence (see section below for details). As is the case for all courses, the final decision to pass or fail a candidate will be made and submitted to the Registrar's Office by the Head of Department.

THE ORAL DEFENCE OF THE DISSERTATION

An oral defence of the dissertation must take place before a "PASS" can be awarded in Biology 499B. The defence will normally be scheduled before the end of the examination period in the semester in which the student is registered for Biology 499B. If the dissertation is submitted late, the defence will be arranged as soon as reasonably possible, bearing in mind the constraints on the time of the Chair, supervisor and examiner, which may not be convenient for the student.

The Chair of the oral defence will normally be the Head, Deputy Head, Undergraduate Officer or some other member of the Department, as requested by the Head. The examiner shall be appointed by the Head of Department or his/her delegate based on recommendation of the supervisor. Normally the examiner will be a faculty member of the Biology Department, a faculty member of any other Department or Academic Unit of this University, or any person outside this University with Adjunct status. Exceptions to this general guideline may be permitted in individual cases by the Head of Department after consultation with the supervisor.

The minimum number of people at the defence shall be the candidate, the supervisor, the examiner and the Chair of the meeting. In addition to these, any member of the Department or any member of the public at large may attend. The defence will usually consist of the following: a brief summary of the work given by the candidate (15 minutes is an appropriate duration; candidates should practice before the formal defence); questions from the examiner and supervisor will occur immediately after the student presentation (each a maximum of 15 minutes); then any further clarification and questions from the Chair will complete the formal first round. Further questions from any or all of these may then follow. Defences will normally take about one hour.

At the conclusion of the defence, everyone will leave the room except the Chair, examiner and supervisor(s). These people will then discuss the quality of the written dissertation (scientific content, organization, writing style, grammar and spelling), the quality of the oral presentation and the manner in which the candidate answered questions. On the basis of these, a decision will be made to pass or fail the candidate. The nature and extent of corrections, additions or changes to the dissertation that would be required in the final copies will also be discussed.

A decision of Pass or Fail is made by the Examiner and the Supervisor. In the case of Cosupervision, the primary research supervisor (as identified on the provisional acceptance form) will normally have the vote. If the examiner and the supervisor disagree, the Chair will decide whether a pass or fail should be awarded; however, if the Chair wishes, a decision may be deferred pending a reading of the dissertation by a second examiner chosen by the Head. In cases where a second examiner is called in, the final decision will be made by the Head in consultation with both examiners, the supervisor and the Chair of the original defence (where that was not the Head).

If called for, corrections must be made by the students as soon as possible (usually within two days) after the oral examination. A final, corrected copy of the dissertation is submitted to the Head of Department who will forward one copy to the University Library. Once the final, corrected copies of the dissertation have been submitted and approved by the supervisor and Head of Department the final grade will be awarded. The length of time that corrections take is the responsibility of the student. The Biology Department takes no responsibility for any consequences to the student (such as inability to graduate immediately after the semester in question) that may accrue from this correction time.

FINAL SUBMISSION TO THE DEPARTMENT OF COPIES OF THE CORRECTED DISSERTATION FOR WHICH A PASS HAS BEEN AWARDED

One final, corrected PDF file of the dissertation must be submitted to the Head before a grade is awarded. All parties involved should be aware that no alterations can be made to the dissertation after the Department has submitted the grade. The Head will forward a printed copy to the University Library. A signed release form, available from the Biology General Office, must accompany the dissertation when it is submitted to the University Library. All honours dissertations in the University Library shall be available for unrestricted consultation by students and faculty except under exceptional circumstances. Copyright remains with the student author.

ORGANIZATION OF THE DISSERTATION

Length and arrangement of text

Many Honours dissertations have been too long. While the Department would never discourage students from pursuing their research to the fullest extent, it must be borne in mind that students are not required to produce graduate level work in an undergraduate course (see "How Much Work is Involved?") about the number of hours that might reasonably be expected for an undergraduate course). This matter is the responsibility of both student and supervisor and should be discussed at an early stage in the research. A typical dissertation should not normally exceed 60 pages of text including bibliography, but excluding figures, tables and appendices.

The general arrangement of the dissertation is to be as follows:

- Title Page
- Abstract
- Acknowledgements
- Table of Contents
- List of Figures
- List of Tables
- List of Abbreviations (if required)
- Text of Dissertation
 - Introduction
 - Methods
 - Results
 - Discussion
- References
- Appendices

Title page

The title page must contain the following information: the approved dissertation title, the full name of the author, the degree for which the dissertation is submitted, the name of the Department (Biology), the name of the institution and the date. It must include the phrase "a dissertation submitted to the Department of Biology in partial fulfilment of the requirements for the degree of Bachelor of Science (Honours.)". The title, while concise as possible, should contain those key words which will identify the contents of the dissertation as accurately as possible.

Abstract

The abstract is a summary of the essential qualities of the dissertation. It should contain a brief description (not exceeding 350 words) of the problem, methods and important results or conclusions. Do not cite references in the abstract.

Acknowledgements

Note any help received in this section. Check with your supervisor about sources of funding that supported your research; these need to be acknowledged here.

Table of Contents

The Table of Contents should list the sections and major subdivisions clearly distinguished in the body of the text. The initial page number for each section and subdivision should be shown.

The title of each section should be typed in full capitals with no terminal punctuation. A subdivision of a section should be indented sufficiently to distinguish it from the section title. The initial letter of a subdivision name should be a capital, the other letters in lower case with no terminal punctuation. The same style of lettering should be used in the body of the text.

List of tables and figures

Each list should include the number of the table or figure, the title for each and the page or pages on which it appears. Only the first letter of the first word in each title should be capitalized (except when other conventions apply e.g. genus names).

Organization and headings

The organization of the text should be discussed with the supervisor. Normally three levels of headings should be used. First-order headings may be centered and capitalized; second-order headings may be capitalized at the left margin; third-order headings may be underlined or italicized at the left margin. Footnotes should be avoided.

Margins

All margins should be approximately 25 mm (about one inch).

Appendices

Only directly relevant material should be included within appendices. Extensive code, raw data, or calculations may accompany a dissertation as appended material, or may be placed in an online research repository (e.g., FigShare, GBIF, GenBank; in which case, a description of the online material with a link should be provided in the appendix). All appendices must be produced to the same standard of legibility as the body of the work.

Pagination

Pages containing Acknowledgements, Table of Contents, List of Tables, List of Figures and other similar preliminary material should be numbered consecutively using Roman numerals in lower case starting with the title page which is unnumbered; the abstract which follows immediately is number "i".

The text of the dissertation should begin with the page heading "Introduction" (or the equivalent) and all pages including tables and figures and facing pages are to be numbered consecutively thereafter in Arabic numerals. Pages containing illustrative matter and the accompanying caption page (if used) should be included in the consecutive numbering. All material, including appendices, must be numbered.

Meaning and style

Your writing should be clear and concise and minimize unnecessary jargon, while still meeting the standards for writing in the discipline of your research. Your supervisor and lab mates can provide examples of writing style typical for thesis in your research field. You may use British or American spelling, but be consistent. Report all units in SI format. You should consult a Scientific Style Guide (see resources below, or ask your supervisor) for issues of technical writing relevant to your project.

Writing is a process of reviewing and revising/rewriting, so a good dissertation will go through several drafts. You ask peers or lab mates to look at early drafts, and your supervisor should review

a complete draft well before the submission deadline, to give you time to revise before submitting the dissertation for examination.

Figures and Tables (if photographs or digital images used see "Photographs/Digital Images)

Figures should be legible and developed in the style appropriate for your area of research. Use a colourblind friendly palette. Figures should be high resolution (600 dpi) with all text/labels in a font 6 points or larger. Any photographs that are not taken by you need to be accompanied by a confirmation of permission and include an acknowledgement. Scientific photographs should include a scale.

Figures and tables should be numbered with Arabic (not Roman) numerals, and be referred to consecutively in the text. All figures and tables should include a detailed caption that allows a reader to understand the figure independently of the text. Explain symbology in figures in the caption, NOT with a legend. Figure captions are placed below the figure; Table captions above the table. Figures and tables should be comprehensible in their own right; that is, sufficient additional descriptive material should follow each title so that the significance of the figure or table is evident without reference to the text.

Tables or figures may be either kept together and placed as a group at the end of the dissertation before the list of references, or placed individually through the body of the text. In the latter case each one should appear where appropriate on the page immediately following the first text reference to it. Do not place figures or tables in the text in such a way that they disrupt the flow of text and limit to one table or figure per page.

References

Candidates must clearly distinguish between their own efforts and those of others. Scientific plagiarism is a serious offense and will result in immediate rejection of the dissertation. References should follow the format of any major scientific journal in the field of research your work falls. Consult with your supervisor about an appropriate journal format to follow. Only references cited in the text should be listed. It is standard practice to quote the original source of an idea, not a subsequent review article or text book. Each reference should be referred to in the text by the author's name (or names) and the year of publication. Material in press, with the names of the journals, may be used as reference. Personal communications should be referred to, with date, in parentheses in the text.

It is strongly suggested that you make use of reference manager software (e.g., RefWorks, Mendeley, Zoterro), but be sure to proof-read the final reference list and manually edit any errors/inconsistencies.

Online Sources

Material should **not** be downloaded from the web and used without acknowledging the source. This includes figures, tables etc.

Copyright

Where a candidate uses essentially unmodified material (such as figures or illustrations) from other sources, it is the student's responsibility to ensure that permission for such use has been obtained where necessary and is acknowledged.

Confidential data

All candidates whose research or dissertation will deal with confidential data should obtain clearance from all appropriate data sources before proceeding with their research. A dissertation based entirely or in part on confidential data, that may not be disclosed to examiners, will not be accepted. Some faculty will not supervise student dissertations that are dependent on confidential data.

Resources

Below are some resources that can help with writing and formatting the dissertation.

Heard, SB. 2022. The scientist's guide to writing. 2nd edition. Princeton University Press, Princeton & Oxford

Rubens, P. (Ed.) 2001. Science and Technical Writing: a manual of style. 2nd edition. Routledge, New York.

Schimel, J. 2012. Writing science: How to write papers that get cited and proposals that get funded. Oxford University Press, Oxford.

Turbek, SP, TM Chock, K Donahue, CA Havrilla, AM Oliverio, SK Polutchko, LG Shoemaker, L Vimercati. Scientific writing made easy: a step-by-step guide to undergraduate writing in the biological sciencies. *Bulletin of the Ecological Society of America* 97(4): 417-426.

APPENDIXA				
HONOURSPROJECT-BIOLOGY499A				
STUDENTNAME:	STUDENTNUMBER:			
TITLEOFPROJECT				
DATE SUBMITTED TO SUPERVISOR:				
SUPERVISOR:(PLEASEPRINT)				
IHAVEREADTHISREPORTANDFINDIT	ACCEPTABLE	UNACCEPTABLE		
SIGNATURE	DATE			
CO-SUPERVISOR:(PLEASEPRINT)				
IHAVEREADTHISREPORTANDFINDIT	ACCEPTABLE	UNACCEPTABLE		
SIGNATURE	DATE			
HEADOFDEPARTMENT:(PLEASEPRINT)				
IHAVEREADTHISREPORTANDFINDIT	ACCEPTABLE	UNACCEPTABLE		
SIGNATURE	DATE			

APPENDIXB				
HONOURSPROJECT-BIOLOGY499B				
STUDENTNAME:	STUDENTNUMBE	R:		
TITLEOFTHESIS				
DATE SUBMITTED TO SUPERVISOR:				
SUPERVISOR:(PLEASEPRINT)				
IHAVEREADTHISREPORTANDFINDIT	READYFOR EXAMINATION	UNACCEPTABLE		
SIGNATURE	DATE			
CO-SUPERVISOR:(PLEASEPRINT)				
IHAVEREADTHISREPORTANDFINDIT	READYFOR EXAMINATION	UNACCEPTABLE		
SIGNATURE	DATE			
DATEOFORALDEFENCE:				
DEFENCECHAIR(PLEASEPRINT)	PASS	FAIL		
SIGNATURE	DATE			