

**Completing Your Master's in Environmental Studies:
A Guide for Adelphi Graduate Students**

This guide is intended as a supplement to the information in the Graduate Bulletin (course catalog). We hope that it will answer many questions you may have about the M.S. program in Environmental Studies at Adelphi. This guide contains the following sections:

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What courses can count to

How long will it take to get a master's degree?

The average time to complete a degree in our program is about two years, for students who take close to the maximum number of credits each semester. Some students, of course, take much longer to complete their degree, often due to heavy outside commitments to work and family.

I want to teach high school environmental science or geology; how should I prepare myself?

The Adelphi School of Education offers a Master of Arts Program in Secondary Education, which can be earned by those with undergraduate degrees in related fields and by those with provisional certification as secondary school teachers. The requirements for this degree are described in the Adelphi

Yes, a limited number of assistantships are available through the program to support master's students. In general, these positions offer partial tuition remission and a small stipend, in return for work as a research assistant. These opportunities are available on a competitive basis based upon the following criteria: academic record, experience, matching with a suitable mentor, and need. Graduate assistants are chosen jointly by the Program Director and the Graduate Coordinator, in coordination with the faculty member who is sponsoring the research. Once accepted, assistants are expected to perform their assigned duties professionally and responsibly. These experiences are an important component of your graduate education.

Who can give me guidance during my graduate career?

The Graduate Coordinator will advise you regarding coursework and your chosen path (internship or thesis). You do not need to select your path in advance. For the internship path, the Graduate Coordinator will serve as the instructor of record for the internship course (ENV 791). For the scholarly paper and research paths, you are encouraged to form a committee consisting of three faculty members (at least two from the Environmental Studies program; one may be from outside the program) as early in your studies as possible. This committee will meet with you to guide you in planning your program of studies and your research. Of course, questions can be directed to any faculty member or to the Graduate Coordinator. For suggestions on choosing a committee, see the section on Research Thesis (p. 12).

If I do a research thesis, how often should I meet with my graduate committee?

Meetings should be called by your advisor as often as needed, but at least three times during the preparation of your research thesis: a planning meeting at the beginning to discuss and approve your proposal; midway through your research; and the final meeting, the defense of your paper or thesis.

How do I decide if I should do an internship or research thesis?

The following are some considerations relevant to your choice:

1. You should definitely do a research thesis if...

...your goal is to work in a lab or to continue on for a Ph.D. With these future plans, the direct research experience you will gain doing a research thesis will be invaluable. Note that although many Ph.D. programs require only a bachelor's degree as a prerequisite, not a master's, you will improve your chances of admission to Ph.D. programs by successful completion of a master's research thesis. If you are not certain whether lab work is the career for you, then a research thesis will give you a chance to explore this option in a relatively short period of time. Your advisor is your best consultant in this decision.

2. You might choose to do an internship if...

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2. Graduate Internship Requirements (ENV 791)

The Graduate Internship is a significant component of your education at Adelphi. In lieu of a research synthesis, you will engage directly in the environmental field and put your training to work. In the process, you will also gain valuable vocational experience and increase your network of professional contacts.

ENV 791 is a 3-credit graduate experience. The work you perform must reflect a semester's learning and progress toward your training as an environmental professional. Although the nature of the work and the exact number of hours required remains flexible due to the broad, inter-disciplinary nature of the program, 150 hours is the minimum (students may petition for fewer hours if the work performed is especially intensive). The work can be performed over 2 semesters.

The Environmental Studies Program can assist with identifying internships but ultimately it is the student's job to locate and arrange an internship.

PROCEDURE

1. *Arrange an Internship.* Speak with local businesses, governments and NGO's. Ke 0.2(ne.2 (0.2 (i) 0.2 (3(i)

Once your work plan is accepted you can register for ENV 791, using an Independent Study form.

3. *Assessment.* When your internship is over, submit the following documents for a grade.

!" **Log of hours worked and actions performed. Supervisor must sign the log.**

#" **Letter signed by supervisor outlining tasks completed and evaluation of performance.**

\$" **Written document outlining exactly what you did and methods used.**

This must be a complete record of your experience. If your work was technical, then you must report on the methods used and examples of results (if results are proprietary then your supervisor must contact the Graduate Coordinator). For example, if you banded birds, you will report on how the work was performed, detail your responsibilities, and list the equipment utilized. If you surveyed the public, you would report on the methods used to select the subjects, design the questions and analyze results. This should include a self- evaluation.

%" **Paper (15-25 pages) analyzing your contribution to mitigating an environmental issue and relating your experience to the program mission.** This should incorporate your results, and so should include

3. Guidelines for the Research Thesis (ENV 799)

The research thesis is the culmination of your master's degree. It is your opportunity to become an expert in laboratory or field techniques and make an original contribution to the environmental field. However, it is not for the uncommitted. Research can be very rewarding, but also very frustrating. We suggest that you take a look at the program's master's thesis collection to get a sense of the format, depth, and breadth of the research performed by previous students.

The research thesis must obviously be based on your own work in the laboratory and/or field. You will work closely with your advisor, who will guide you in the research and in the actual writing of the thesis; additional guidance is available from other faculty members, especially those you select to be your advisory committee.

Defining a thesis project

The extent of your project (i.e., what you must accomplish in order to finish) will be determined in consultation with your advisor and your thesis committee, generally at the meeting at which you present your thesis proposal. Your accomplishments will fall into two areas:

1. **Research:** You must perform analysis or experiments that represent reasonable attempts to answer a question, solve a problem, or find out something unknown. If you obtain negative but informative results, they may be acceptable. A master's thesis does not need to describe a major research advance, as a doctoral thesis generally should, nor need a master's thesis necessarily result in a scientific publication.
2. **Writing:** You must present your results to the program in the form of a thesis. The requirements for the thesis are described in more detail below.

How long will it take to finish?

This depends on you, on the project, and on your advisor. The research for a master's degree generally takes a minimum of six months to complete, and the average is probably somewhat longer. Students who devote less time to their project, whether because of outside commitments or because of low motivation, are likely to take longer to complete the

necessary research and writing. Your advisor may be able to give you a rough idea of how long he or she expects a project to take, but be aware that this can only be an estimate. Remember the caution in the first section about the uncertainty involved in scientific research.

Writing the thesis itself may take less time than doing the research, generally one to three months. Be sure to allow additional time for your advisor to edit your rough draft and for you to revise it. Advisors often have other obligations besides reviewing your thesis for you.

Checklist for Completing a Research Thesis

1. Choose advisor (see Section A below).
2. Choose a committee, in consultation with your advisor.
3. Choose and define a thesis project in consultation with your advisor (see Section B below).
4. Develop an outline, bibliography, and plan for your project (see Section C below).
5. Prepare a thesis proposal and present it to your thesis committee.
6. Have a proposal meeting with your committee to receive suggestions and approval of your thesis studies. This is not optional; you must have a proposal meeting that occurs in advance of your defense. This meeting serves to make sure that you are on the correct track with both your thesis and with your degree. See below for more information about the proposal.
7. Carry out your research! (You can begin the research at any time, even if not registered for "thesis research"; see Section D below.)
8. Register for thesis research for credit (ENV 799).
9. When experiments are complete, or nearly so, begin writing (see Section E below).
- 10.

You can begin your research while you are taking classes, although some students prefer to wait until they have completed or almost completed their coursework before beginning their research. If you have decided on an area that interests you, have found an advisor, and can make the time in your schedule, then you are encouraged to begin your research as soon as possible.

Usually the advisor will guide you when you start out, showing you the basic techniques that you need to know. As you gain experience, you will become more independent, but never hesitate to seek guidance from your advisor. Your thesis committee members and other faculty may also be sought for advice. Be sure to keep a diary or lab notebook of your research; this will be an invaluable record when it is time to write up your results.

E. The thesis proposal (optional)

As soon as possible after you have defined your thesis project, you should prepare a proposal describing your planned project and present it to your thesis committee for approval and suggestions. The proposal should be a short written document, generally 2-5 pages, that includes the following: a short introduction to the field; a clear statement of the problem or hypothesis that your thesis research addresses; a description of the techniques that you will be using; and a description of the experiments that you will be performing, making clear how they relate to the topic of your thesis. You should also have an up-to-date list of references (of your

F. Writing the thesis: Format

The leading source of information on acceptable style for scientific writing is the book *Scientific Style and Format: The CSE Manual for Authors, Editors, and Publishers*, 7th edition, available in the reference section of the library (call number T11 .S386 2006). For general guidelines on writing clear and correct English, you are strongly encouraged to read W. Strunk's *The Elements of Style*, also available in the reference section of the library (call number PE1408 .S772 2005). This volume is also available in paperback in bookstores.

The thesis must be written in your own words, not in sentences compiled from articles. In general, the format follows that of a primary journal article, with some additional

At the end of the introduction, you should briefly present the problem or question that your project addressed.

Materials and Methods should be complete to enable the readers of the thesis to understand the experiments directly, rather than giving all techniques by reference to other articles. It should be written in narrative (text) form, not in the form of tables or lists (*i.e.*, no bullet points), and should be in the past tense.

The **Results** section should present the results of the research in narrative form, with enough text to make them comprehensible. Data in the form of figures, tables, and graphs should always include explanatory legends.

In the **Discussion** you should interpret and explain the results presented in

Write the thesis, in a form acceptable to your advisor, as described above.

Copy and distribute the thesis to your committee. The examination committee must consist of the thesis sponsor and at least two additional members of the faculty.

Schedule the thesis defense for a time when you and all your committee members can meet. The scheduling of the defense must be approved by the advisor and the program director.

Notify the program secretary to schedule a room and announce the defense.

Prepare your presentation.

journals or scientific organizations) may be used as reference sources only if correctly cited and referenced. The author is often listed at t

Three or more authors

(Lin et al. 2008)

Multiple sources cited for the same information (arrange in chronological order)

(Aguade 1998, Sabeti et al. 2002, Foster and Walker 2009)

Reference list at the end of the paper

References should be arranged alphabetically by the first author's last name.

The list should have a hanging indent (the first line of each reference should be at the left margin, and any subsequent lines should be indented).

Each author's name should be listed as the last name followed by first and middle initials, without periods (that is, John B. Smith would be listed as Smith JB).

For article titles, only the first word should be capitalized (with the exception of proper nouns).

For journal titles and book titles, all words should be capitalized (with the exception of minor words such as "and," "the," etc.).

Journal articles accessed online should be cited with the same format as print articles, with volume and page numbers.

Authors. Year. Article title.

Brody TB. 2011. Drosophila behavioral programs [Internet]. c1995, 1996. Society for Developmental Biology web server, The Interactive Fly website. [cited 2011 August 12]. Available from: <http://www.sdbonline.org/fly/aimain/6behavior.htm>.

Author(s). Year of last update (at bottom of web page, if given). Article title - usually seen at top panel of browser [Internet]. Place of publication (if known): Organization Name. [cited date]. Available from: URL.

Note that if author is not given, substitute the organization name (which should also be used in the citation). If this is not available, substitute the article title (and do not repeat it after year).

5. Thesis proposal approval and Thesis

6. Sample Title Page