EARTH SYSTEM SCIENCE & POLICY DEPARTMENT

GRADUATE STUDENT HANDBOOK

(Updated May 2014)

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^{*}Some content in this handbook has been borrowed from the Department of Environment & Society Graduate Handbook at Utah State University: http://www.cnr.usu.edu/envs/files/uploads/graduatehandbook.pdf

I. Introduction

This handbook describes the basic requirements for obtaining a graduate degree in the Earth System Science & Policy Department. The handbook also presents suggestions for making your graduate program less difficult and more fulfilling. While many of these points will already be familiar to students with graduate school experience, they are included to help those with less experience, and to ensure a common level of understanding for both students and faculty alike.

Introduction to Graduate Studies

Graduate studies, unlike more general undergraduate programs, focus upon a chosen area of specialization in a profession. You have expressed the desire to participate in a specialization, and you should be excited about this opportunity. Graduate school differs from undergraduate studies in many ways:

- Graduate studies are much more than striving for good grades in course work. As a beginning professional, you are expected to demonstrate initiative, ambition, excitement, and creativity.
- Course work is only a part of your studies. You will not fully attain expertise in the profession by course work alone - independent discovery and discussion are critical elements. Reading past and current literature and discussing additional ideas with your peers are critical components of graduate study.
- Professors should be viewed as colleagues who expect you to perform as a member of the
 profession; additionally, don't hesitate to seek their advice as experienced fellow professionals.
 Your fellow students should be viewed as peers who help you formulate ideas and develop your
 skills through constructive criticism.
- Learning to ask the "important" questions and seeking answers is an aspect of professional development. You should strive to develop the ability to ask probing questions and to seek answers. Graduate studies help you to learn how to address problems, not how to recite dogma. Hopefully, you will have the opportunity to answer some of the pressing questions in the profession.
- A chosen profession should be exciting and rewarding and if you are not enjoying your education, re-evaluate your goals. Even though you should be having fun, you should be continually evaluating your performance. Are you pleased with your progress? How does your progress compare with that of other graduate students, faculty and others in the profession? Are you progressing towards a leadership role in the profession? Are you attaining a competitive position, given the current job-market and the qualifications of others in the profession? Are you making progress toward your personal goals?

II. Advice on Graduate Studies

Many of these suggestions were originally made by Steven Stearns and Raymond Huey: [S. Stearns. 1987. Some modest advice for graduate students. *Bulletin of the Ecological Society of America* 68(2):145-150, R. B. Huey. 1987. Reply to Stearns: some acynical advice for graduate students. Bulletin of the Ecological Society of America 68(2):150-153].

Know Why Your Work is Important

When you first begin your graduate program, read and think widely and exhaustively. Assume that everything you read is suspect until the author manages to convince you otherwise. If you do not understand something, reread it. This first stage is difficult because students often feel guilty about not getting started on their own research. You will continually be asking yourself, "What am I doing here?" Be patient. This stage is critical to your personal development and to maintaining the flow of new ideas into science. Here you decide what constitutes an important problem. It's best to arrive at this decision independently for two reasons. First, if someone hands you a problem, you won't feel that it is yours, you won't have the possessiveness that makes you want to work on it, defend it, fight for it, and make it come to fruition. Secondly, your graduate degree work will shape your future. It is your choice of a field in which to carry out a life's work. It is also important to the dynamic of science that your entry be well thought out. This is one point where you can start a whole new area of research. Remember, what sense does it make to start gathering data if you don't really know what you're going to do with it.

Take Advantage of Informal Learning Opportunities

Alert graduate students will find that there are as many, if not more, opportunities for them to learn from fellow students as from classes or conferences with their professors. The students that gain the most from their graduate years take every opportunity to talk with students with experience from other parts of the University, the U.S., and the world. Students can learn a great deal by sharing work efforts, and traveling to different study areas with other students and/or professors. The department will try to facilitate these opportunities for interaction. Interaction will not be forced, however. Thus, a student that quietly keeps to him or herself working only on their research will gain only a fraction of the experience that the sociable, widely inquiring student will be able to obtain. Lifelong professional ties can be built between fellow students to enhance the student's long-term chances for success.

The department and college will periodically schedule social gatherings for faculty and graduate students to assist in creating a sense of community. All graduate students are strongly encouraged to participate in those activities. Graduate students can also serve as mentors to new incoming students and role models for undergraduates in their field.

Get Involved with Professional Societies and Meetings

Graduate students are strongly encouraged to join and participate in the activities of pertinent professional societies such as the American Association for the Advancement of Science (AAAS), American Geophysical Union, American Meteorological Society, or the International Association for Society & Natural Resources (IASNR). Most societies have special low student dues in recognition of student budgetary constraints. In addition to reading journals and newsletters, the student should attend professional meetings whenever possible. Students serving on professional society committees and/or delivering papers will often be able to obtain partial travel expenses from the department or the Research Development & Compliance office.

Take Every Opportunity to Present and Discuss Your Research

By enrolling in graduate school, you've committed to spending much time, energy and money over the next few years in pursuing a graduate degree. It is important that you obtain the most out of your program, and that your work be as good as it can be. To do this, take every opportunity to present and discuss your research and ideas. There are many opportunities to do so. Volunteer to give a departmental brown-bag seminar. Offer to give a guest lecture in a faculty member's course. The offer will generally be appreciated, especially when faculty have scheduled time out of town for research or to attend professional meetings. Better yet, submit applications to present oral or poster papers at professional meetings. The UND Scholarly Forum (held annually in February – March), North Dakota GIS Users Conference and similar events provide a good opportunity to present your research locally to a wider audience free of charge. Volunteering for panel discussions or moderator roles can also help hone your ideas and broaden your circle of contacts. Oftentimes, funds will be available to assist with your travel.

Plan to Publish Your Results

A report, thesis, or dissertation is not considered a publication. These documents are not readily accessible to the research and management community at large. Anyone that accepts public funding to carry out research has an obligation to make the results available to the public that paid the tax dollars or donated the foundation money enabling the research to be accomplished. Consequently, every student, especially those supported on research assistantships, is expected to get at least the main elements of his or her research into widely available, published form. The stature of the department and its continuing ability to attract research funds highly depends on this process. Maintenance of departmental stature is valuable to all past and potential recipients of ESSP graduate degrees. Present graduates draw on the past departmental reputation as they vie for positions in the current job market.

Therefore, students will be encouraged to write up their work in a form acceptable for publication within one year after completion of degree requirements. This task becomes more difficult the longer it is delayed. Accordingly, if s/he fails to meet this obligation within one year after leaving the University, the responsibility for getting the work published will fall to the major professor. This, in turn, may change the professor's opinion when answering requests for references for jobs and awards. Be forewarned, however, that publishing is a lengthy process. Peer reviews can be harsh, and it may be a year or two until a paper submitted to a journal actually appears in print.

Take Charge of Your Graduate Program

Some of the greatest catastrophes in graduate education could have been avoided by a little intelligent foresight. Although it may sound bad, assume the worst. Perhaps your proposed research might not work, funding might fall through, or one of your faculty advisors might become unsupportive --or even hostile; plan for alternatives. It is important to realize that although all ESSP professors care about you and are willing to help, all faculty are busy with multiple work obligations. As a result, decide early on that you are in charge of your program. The degree you get is yours to create. Your major professor will do his/her best to advise and guide you through academic and bureaucratic pitfalls, but s/he will not prescribe you what to do. That is up to you. If you need advice, ask for it - it's the faculty member's job to provide it.

Also remember that your time and money (or financial aid) provide you access to the opportunities and expertise the University has to offer, but does not guarantee you success. You are not purchasing your degree, you are earning it by taking advantage of all the opportunities around you.

Recognize that Psychological Problems Are Often Your Biggest Barrier to Success

You must establish a firm psychological stance early in your graduate career to keep from being buffeted by the many demands that will be made on your time. If you're not careful, the pressures of course work, research, lab work, language requirements, and who knows what else, can be overwhelming. Here are a few things to watch out for:

- Recognize that good time management is your path to success in graduate studies and poor time
 management can lead to your downfall. Talk to the faculty and your peers about tips and
 strategies for managing your responsibilities in the ESSP program. You can also take advantage
 of advice and training sessions from the Student Success Center:
 http://sas.und.edu/learningservices/skillsaids.html
- Get all of your course requirements and examinations out of the way as soon as possible. Not only do you thereby clear the deck for your thesis, but you also convince yourself, by successfully jumping each hurdle, that you are good enough after all.
- Remember to respect your faculty and peers as professionals; this means communicating well and often. Expect and demand to be treated like a colleague; but first you have to act like one.
- The initiation/rite-of-passage nature of completing your graduate program often leads students to believe that their value as a person is being judged. No matter how hard you try, you won't be able to avoid this. No one does. It stems from the open-ended nature of the thesis problem. You have to decide what a "good" thesis is and when you have achieved that level. A thesis can always be made better, which too often leads to an endless cycle of revisions.
- Recognize that you cannot produce a "perfect" thesis. There are going to be flaws in it, as there are in everything. Settle down to make it as good as you can within the limits of time, money, energy, encouragement, and thought at your disposal. Even if you find that your results completely contradict your initial expectations, they are still results; seek advice on how to proceed but do not fall prey to the mind-trap that you have somehow failed.
- Remember, you were admitted into our graduate program because of your exceptional abilities, and your expressed desire to become a leader in the profession. The faculty want you to succeed and will work with you to attain this goal, given your continued exhibition of this desire to achieve success in the profession.
- If you find that yourself feeling depressed, overwhelmed, or experiencing extreme anxiety, please talk to us your professors, department chair, graduate director, etc. We want to be helpful. Also, please consult the UND Counseling Center: http://und.edu/student-life/counseling-center/ They have professional psychologists and counselors who specialize in the needs of university students.

III. General Policies

Computers and Computer Lab Use Policies

See the ESSP Computer Use Policy Handout and the UND Guidelines: http://www.und.edu/dept/itss/policy.html

Copies of Forms

As a general rule, please make copies of all official documents and forms that track your degree or have official signatures, e.g. Program of Study, Change of Degree, Tuition waiver, etc. (one for you, your major professor, and one for your dept. file). Also, please hand-deliver to the Graduate School office any of these forms they need; you do not want to take the chance that your signed form is lost in campus mail so that you miss an important deadline.

Change of ESSP degree – PhD/MS and MS/MEM

Students who decide they want to change their degree plan between the PhD and Masters of Science (MS) or the MS and the Masters of Environmental Management (MEM) can do so by filling out the appropriate department form (see Appendix) and obtaining the needed signatures. Please note that either of these change of degrees is not something to decide lightly. You should discuss this with your major professor (and advisory committee, if formed). For the PhD/MS degree change, the decision should be made prior to taking ESSP 596 (Doctoral Research) or ESSP 599 (Dissertation) because these credits cannot be applied toward the MS degree; this degree change will also require the approval of a student's advisory committee, and the ESSP Graduate Director and Department Chair. For the MS/MEM, the degree change should take place no later than fall semester of your second year (ideally, this change should be made in the first year of coursework).

Leave of Absence and Off-Campus Research

The Department chair and the Graduate School can be petitioned for a leave of absence-http://graduateschool.und.edu/policies-and-procedures/readmission-policy.cfm. A leave can be granted for: illness, military service, or other extenuating personal circumstances. A leave of absence might not be granted for extended off-campus research because you are expected to be enrolled while conducting research (even off-campus research). Furthermore, deadlines and the 7 year limit for degree completion are still operating even though you may be off-campus conducting research.

Incomplete Grade for ESSP courses

If unexpected circumstances (e.g. extended illness, death in the family) lead to you being absent for several weeks of classes, you can request an Incomplete (I) grade for an ESSP class; you must have been regularly attending class and completing satisfactory work prior to the extended absence. The request must be approved by the course instructor. Details for this UND policy can be found in the university catalogue and here:

http://und.edu/academics/registrar/academic-policy-procedures-manual.cfm#incomplete-policy

Scholastic Dishonesty, Plagiarism, and Research Fraud

Maintaining the highest standards of academic honesty and research ethics is especially important at the graduate level, where students are expected to do original, scholarly work in preparation for future professional and academic roles.

From the UND Code of Student Life: http://und.edu/student-affairs/code-of-student-life/

Scholastic dishonesty includes, but is not limited to, cheating on a test, plagiarism, and collusion. Cases of dishonesty may be handled as a scholastic matter or as a disciplinary matter at the discretion of the instructor. Instructors choosing to treat the case as a scholastic matter have the authority to decide how the incident of dishonesty will affect the student's grade in the course. If the instructor has treated the case as a scholastic matter involving the grade in a course and the student has a grievance related to this action, that grievance would be processed as outlined in Appendix III-2 of the Code of Student Life. Instructors choosing to treat the case as a disciplinary matter will refer the case to the Associate Dean of Student Life for possible resolution; if final resolution does not occur the Associate Dean of Student Life may refer the case to the Student Relations Committee which will handle the matter under Section 2.

- A. Cheating on a test includes, but is not restricted to:
 - 1. Copying from another student's test.
 - 2. Possessing or using material during a test not authorized by the person giving the test.
 - 3. Collaborating with or seeking aid from another student during a test without permission from the instructor.
 - 4. Knowingly using, buying, selling, stealing, transporting, or soliciting in whole or in part the contents of an unadministered test.
 - 5. Substituting for another student or permitting another student to substitute for oneself to take a test.
 - 6. Bribing another person to obtain an unadministered test or information about an unadministered test.
- B. Plagiarism means the appropriation, buying, receiving as a gift, or obtaining by any means another person's work and the unacknowledged submission or incorporation of it in one's own work. (In the ESSP department, this includes information from the Internet, such as Wikipedia, Government reports, etc. If in doubt about whether or how to cite a source, ask your professors.)
- C. Collusion means the unauthorized collaboration with another person in preparing any academic work offered for credit.

The following guidelines can help you avoid plagiarism:

(From: J. Raymond Hendrickson, in his book *The Research Paper*, Henry Holt and Company, New York, 1957)

- When writing a paper, try to use your own words the majority of the time.
- When you do use another person's words, use quotation marks and give credit to the source, either within the text, in a footnote, or as a citation.
- Do not make slight variations in the language and then fail to give credit to the source. If the expression is essentially the same, the author still deserves credit.
- Even if you are not directly quoting the material, you should still document information and ideas that you use in your paper whenever they are new to you (i.e., something that you discovered in your research).
- If you are unsure, add the footnote or citation. It is better to be extra cautious than not give credit when you should.
- These rules concern information obtained from any source (e.g., books, journal articles, the Internet, other students) and apply to any written submission (term papers, essays, assignments, take-home exams and lab reports).

The ESSP department treats scholastic dishonesty very seriously. If a claim of scholastic dishonesty is made against you, the following disciplinary actions may be taken.

- Zero credit for the assignment in question
- Zero credit for the course overall with the requirement to repeat the course if necessary

- Referral of the case to the Associate Dean of Student Life and the Student Relations Committee
- A disciplinary letter, signed by the department chair, graduate director, and your major professor will be placed in your permanent file.
- During your time in ESSP, if you conduct a second abuse of scholastic dishonesty, you will be expelled from the program.

Wet-lab Use Policies

Students may use the wet lab space and equipment in the course of their study, as long as they keep the facilities neat and clean. Dangerous chemicals and combustible materials are stored in the laboratory; always follow regular laboratory safety standards. Any use of the instruments stored in the wet lab or utilization of the lab space should be authorized by the student's major professor. The tables and floors of the wet lab normally should not be used to store the equipment; an exception could be when a lengthy disassembling process is required to store the equipment properly. If you need space to conduct an experiment, be sure that your installation (1) does not block the exit from the room; (2) does not prevent others from using the laboratory; (3) will not interfere with teaching (consult with the professor teaching the relevant class); (4) is properly installed (e.g., will not leak on the floor); (5) will not damage other instruments; (6) is disassembled promptly after the experiment is concluded. Lock the laboratory door when there is nobody inside, even if you are planning to return soon. Clean and shelve the glassware after you are done with experiments. Not following these rules (including a failure to clean the laboratory after each use) may result in a ban on laboratory use.

IV. Financial Assistance for Graduate Students

Several types of financial assistance are available to graduate students in the ESSP Department. These include graduate research assistantships, tuition waivers, hourly wages for specific projects, and student loans. Formal offers of financial support may be made only after a student has been fully admitted by the Graduate School. All employment procedures will conform with Affirmative Action and Immigration and Naturalization Service policies.

Graduate Assistantships

Graduate assistantships (GAs) may be available from the ESSP department or from collaborative research and study under a specific faculty member who provides the funding and equipment. Graduate students are encouraged to identify those faculty whose research and study corresponds with their own area of interest. The ability of faculty to take on research assistants may be limited by several factors, including finances, equipment, and time. Therefore, it is the student's responsibility to plan well in advance and request specifically for the availability of faculty.

GAs may be available through individual faculty members who supervise research financed by grants and contracts from various governmental agencies and private foundations, and are administered through the ESSP Department. Continued flow of these monies depends on expeditious production of results. Accordingly, students associated with a project are expected to meet the same deadlines as the project leaders who initiated the proposal and accepted the awarded grant or contract. The student usually writes a thesis or dissertation from data collected within the project framework. S/he may or may not collect additional data for the overall project objectives depending on how closely the thesis or dissertation encompasses overall project objectives.

GAs are normally awarded on an annual basis but are subject to semester by semester renewal. Stipends and other conditions associated with research assistantships are set by the ESSP department. An offer of financial assistance is not valid unless accepted within the stated time period and appearance at the arrival date indicated in the letter of offer. The period of service is normally 9 months (with a possible addition of 3 summer months), with the student assistant spending 10 - 20 hours per week on the work. Students interested in summer GA work need to talk with their supervisor(s), prior to spring break week, about how many months they want to work.

Stipends are potentially taxable. A social security number is required for payment of stipends. International students may experience a delay of several weeks after arrival in obtaining this number. They thus should bring enough funds to pay for their needs during this period. Most GAs begin August 15; thus application for these appointments should be received the preceding winter or spring. GAs may also receive tuition waivers.

Tuition Waiver/Remission

Tuition waiver/remission may be awarded annually or by semester, depending on available funds and academic qualifications. The difference between a tuition waiver and remission is the source of funding; the waiver comes from University funds, while the remission comes from a specific grant. The student must sign and return both the waiver and remission forms before s/he can register for classes; and must register within the regular add/drop timeframe. The department must submit a waiver/remission request to the Graduate School for approval generally one month before the appropriate semester. Please note the following:

- Students receiving a GA must enroll in a minimum of 6 credits per semester (Fall and Spring) and/or 3 credits in Summer. Audited courses and on-line courses do not qualify for waiver/remission.
- If a student is terminated prior to the completion of a semester for which he or she has received a waiver/remission/grant, the waiver/remission/grant will be CANCELLED.
- Tuition remission covers tuition only. It does not cover university fees. Classes may be dropped if fees are not paid. It is the student's responsibility to check their billing statements and make sure that all associated fees are paid in full by the Graduate Student Fee Payment Deadline.
- US residents who are not legal residents of North Dakota may receive out-of-state tuition waiver for the first year, after which they should apply for ND residency (if you choose to not do so, you will be responsible to pay the difference between in-state and out-state tuition). Information about residency can be found in the Graduate School's Assistantship handbook: http://graduateschool.und.edu/graduate-students/current/handbooks-and-guides.cfm
- International students may receive out-of-state tuition waiver for the first year, after which they may receive tuition waiver equivalent to ND residency tuition.

Continuing Enrollment

If a student completes their Program of Study but needs additional time to finish writing the thesis/dissertation, they will register for 1 credit of continuing enrollment for each semester/summer until they finish. Students must pay the enrollment fee. Students in this situation can apply for hourly wage work with the Department; approval is dependent on available funding, projects, past student work performance, and degree progress as evaluated by the major professor and advisory committee.

Health Insurance Questions

UND provides health insurance coverage for GRAs who are US/Canadian citizens. Please note that if students have questions regarding their health insurance policy, they should contact either Vaaler Insurance (Nicole Evans or Ray Pollard - 775 3131) rather than UND Payroll. International students are covered under a separate plan. Please see the Graduate School's Assistantship handbook for more details: http://graduateschool.und.edu/graduate-students/current/handbooks-and-guides.cfm

Insurance and University Vehicle Use

The University carries liability insurance on all state employees and those acting on behalf of the state in an official capacity, including graduate students who are on contract while using a University vehicle. It is not in force if students are breaking the law at the time of the accident (e.g., drinking alcoholic beverages in a state vehicle). The law breaker is also personally responsible for all fines (e.g., traffic tickets). Please review the State of ND's Fleet Services Policy Manual: http://www.dot.nd.gov/manuals/fleet/fsmanual.pdf.

From the UND Transportation Department:

Each ND agency/institution is responsible for the actions of its authorized drivers and must institute proper disciplinary actions for violating the regulations. Additionally, each agency/institution must reimburse State Fleet Services for:

- 1. The cost of repairs for damages resulting from an employee's gross negligent driving or misuse.
- 2. The cost of repairs for damages resulting from other than normal over-the-road operations.
- 3. The towing costs resulting from vehicles being driven into swampy or rugged terrain, unless driving there is necessary to carry out the agency's/institution's duties and responsibilities.

State Fleet Services will notify department heads of all operator violations.

V. ESSP Assistantship and Employment Policies

Please keep in mind that your GA, and/or hourly employment, is an official job with an employment contract; it is your responsibility to complete tasks and your required weekly hours in a professional manner. Although you may not always find your required tasks interesting, you must complete the work the same as you would for any other job.

Note: Failure to maintain professional conduct and/or failure to keep-up with your required work hours or assignments are basis for reduction or termination of your GA/employment.

Supervision

As a GA you have been provided with a specific departmental work or research assignment which requires your spending certain agreed-upon hours of work each week; it is incumbent upon you to carry out your contract in a fully professional manner. Although your immediate GA supervisor may be your major professor, another faculty member, or lab director, it is also incumbent upon you to make yourself acquainted with general regulations that apply to all staff and students who work on campus. UND policies are available from the Graduate School Assistantship handbook and the Student Code of Life and usually require some orientation at the beginning of the year.

Reporting and Time Sheet Submissions

Whether you are working as a GA or on hourly wages, it is your duty to faithfully keep track of your work hours as required by your supervisor(s) and University financial managers. If you are employed on hourly wages, you need to report your time on the appropriate form(s), get your supervisor's signature(s), and turn it in on time, to be paid on time.

Holidays, University breaks, Leave, and Vacations

Check the University calendar for official holidays and semester breaks. The week between Christmas and New Year's Day is winter-break when campus is closed. Consult your supervisor and your agreed-upon contract for start and end dates each semester.

You may request a leave (e.g. a few days, a couple weeks, a month) from required GA hours for personal reasons, consult your supervisor and/or the lab administrator for approval; note that this may be unpaid leave which is decided on a case-by-case basis. Arrangements for absences from campus or field sites should be worked out between the student, major professor, and GA supervisor(s). The student should indicate when s/he expects to return; some cases may also require the student to request a leave of absence from the Graduate School. If intended leave conflicts with needs for data collection, analysis, or preparation of reports to administrators or funding agencies, the student may expect to have requests for extended leave denied.

Note: GAs may take up to 10 work days of paid-vacation during each year (5 days in academic year, 5 days in summer); these do not need to be consecutive days, but you need to keep track of how many days-off you have taken. Depending on funding sources, students may be eligible for 5 flex-days each semester (in case of surprise situations, e.g. injury, relatives visit, funeral, etc). You need to consult your supervisor(s) of dates that you would like to take vacation; please discuss dates early and prior to setting plans (e.g. purchasing airline tickets).

VI. Checklist for Completing ESSP Degree

What You Must Complete For Your Graduate Degree

It is the responsibility for both you and your major professor to track the completion of your degree requirements (grades and checklist of actions). The annual ESSP department evaluation will create an official record of your achievements, should questions or discrepancies arise.

If departmental records indicate that you have not completed a requirement by the recommended date, your major professor and supervisory committee will be informed to determine whether the records are correct. If the records are correct, your major professor and supervisory committee will contact you on the matter. Failure to remedy the deficiencies may make you ineligible for department and university financial assistance, and if not remedied can lead to termination of your graduate program.

The following checklist is the recommended sequence of actions to be taken by ESSP students for successfully completing their graduate program; nonetheless, there exists some flexibility in designing one's graduate program. Although the following sequence of events is only recommended, it should be taken seriously. The Graduate School has official final deadlines for graduation requirements, please keep track of these carefully; specific information can be found on the website: http://graduateschool.und.edu/dates-and-deadlines.cfm. Please note that ESSP department deadlines are often earlier than the final deadlines set by the Graduate School; consult the ESSP checklist first and then do not miss the Graduate School deadlines as it could lead to termination of your degree program.

Is there a time limit on finishing my degree?

Yes, graduate courses more than <u>seven years</u> old are considered obsolete and may not be counted to fulfill course requirement for an advanced degree program. Programs of study more than seven years old also are obsolete. Obsolete UND graduate courses may be revalidated and may be counted toward an advanced degree on the recommendation of the student's faculty advisory committee and the dean of the graduate school. Please contact the graduate school for more information on the revalidation process. Graduate work from another institution, which is overage, cannot be revalidated and will not count towards a UND degree. All Graduate School degree forms can be found at: http://graduateschool.und.edu/graduate-students/current/forms.cfm

Can I take undergraduate courses in my graduate POS?

Yes, you may apply some undergraduate courses. Be aware that half of your degree credits must be at the 500 course number or higher. If you choose 300 or 400 level courses for your graduate degree, it is understood that you will be required to do additional work for the class. You may need to file a petition form to obtain approval from the Graduate School for some 300 level classes. Please obtain the instructor's permission and confirm the additional work via email; print this and include it with your POS form.

Recommended Timelines for ESSP degrees

Timelines for credit management in ESSP Program of Study

Master of Science (based on starting in fall and Graduating in December of Year 3)

		# 011 Starting			Determent of			
Year	1	1	1	2	2	2	3	Total
Semester	1-	2	3	4	5	6	7	7 semesters
Season	Fall	Spring	Summer*	Fall	Spring	Summer*	Fall	
Credits	10	10	0	6	6	0	6 (Thesis)	38 (36 min)

Master of Environmental Management (based on starting in fall and Graduating in December of Year 3)

Year	1	1	1	2	2	2	3	Total
Semester	1-	2	3	4	5	6	7	7 semesters
Season	Fall	Spring	Summer	Fall	Spring	Summer	Fall	
Credits	10	10	0	6	6	0	6 (Int+Rprt)	38 (36 min)

PhD (based on starting in fall and Graduating in December of Year 5)

Year	1	1	1	2	2	2	3
Semester	1-	2	3	4	5	6	7
Season	Fall	Spring	Summer*	Fall	Spring	Summer*	Fall
Credits	10	10	0	6	6	0	6

PhD cont.

IID CONC								
Year	3	3	4	4	4	5	MS Credits	Total
Semester	8	9	10	11	12	13		13 semesters
Season	Spring	Summer*	Fall	Spring	Summer*	Fall		
Credits	6	0	6	6	0	6	30	92 (90 min)

^{*}If you are supported by GA, it is very likely that you will need to work for the research that support your RA during summer semesters. You can either take research credit or work as temporary employee. Discuss with your advisors.

Master of Science Degree Checklist

For more information refer to the UND Master's student handbook and the Style and Policy Manual for Theses and Dissertations. All forms, handbooks, and manuals are available on the graduate school website at: graduateschool.und.edu. Published deadlines are printed in the UND academic catalog and the Graduate School's Dates & Deadlines for each semester: http://graduateschool.und.edu/dates-and-deadlines.cfm

Most steps in this checklist have an accompanying form on the Graduate School website: http://graduateschool.und.edu/graduate-students/current/forms.cfm

____ Complete undergraduate pre-requisites as stated in your admission letter (This only applies to students admitted in provisional or qualified status).

By the End of 1st Semester

____ Choose a Major Professor (if changing from original)

Please discuss your decision with your original major professor and the faculty member whom you would like to switch to. This should not be a unilateral decision that surprises your major professor or committee members, if established.

Select Faculty Advisory Committee

You entered the graduate program with a Major Professor (you can change who is your major professor if desired, please begin the process by talking to the Graduate Director or Department Chair). M.S. students select at least 2 additional faculty members to serve with your major professor on your Committee. Faculty should be asked if they are willing to serve and if they agree, list them on the. The Committee's composition must be approved by the graduate director and/or department chair. Members of the committee should be individuals who can provide constructive input to your research and program of study. Two individual must come from the ESSP Department. If you would like a committee member(s) from outside UND, please consult your major professor and petition the Graduate School for approval.

By the End of 2nd Semester

____ Submit Your Program of Study (see example in Appendix)

Discuss your career plans and Program of Study with your major professor and construct a tentative Program of Study by the end of this semester. Early in the semester, you should have a committee meeting in which your career plans and program of study are reviewed, along with your thoughts on possible research projects. The ESSP department recommends that MS students plan their degree within 5 academic semesters and 2 summers for the Program of Study.

___ Defend your Thesis Proposal

Prepare your research proposal by working in collaboration with your major professor and committee members. Ask your committee how much time they would like to have to review your proposal before your defense (e.g. 1-2 weeks, 1 month, etc.). When you have a draft ready, submit it to your major professor for review before sending it to the whole committee. You and your major professor should then discuss dates for your defense with the committee. Your defense will take place with the committee only; they will listen/observe your proposal presentation and provide constructive feedback and potentially suggest changes. Changes should be completed in a timely manner and reviewed by your major professor.

Getting Ready to Graduate Submit a Topic Proposal of Your Research to the Graduate School (Submit no later than the semester before you plan to graduate) The Topic Proposal form can be found on the UND Graduate School website. This should be submitted once you have defended your thesis proposal and made any necessary changes requested by your committee.
Advance to Candidacy (You must be advanced to candidacy no later than the semester before you plan to graduate.) You can be advanced to candidacy after you have the following: completed any undergraduate prerequisites and be in 'approved' status, your program of study approved by the Graduate School, a faculty advisor and committee established, at least 12 graduate credits with a 3.0 GPA, and your thesis report proposal approved by the Graduate School. You will be mailed a status sheet from the Graduate School along with a graduation application.
Apply to Graduate You must submit this application by the published deadline for the term in which you plan to graduate- see the Graduate School website for dates.
Submit the "Preliminary Approval of Your Thesis" form This must be submitted to the Graduate School on or before the published deadline- see the Graduate School website for dates and forms.
Submit the "Notice of Master's Thesis Defense" form This must be submitted to the Graduate School one week in advance of your defense. (Preliminary Approval must have been submitted on or before the deadline)
Defend your Thesis This is a public presentation of your research project. Once your thesis is complete, and has been reviewed and approved by your committee, you will set a date for your defense.
Submit a Draft Copy of Your Thesis to the Graduate School This must be checked for Format and Style (Do this after you have received preliminary approval.)
Submit a Final Copy of Your Thesis to the Graduate School (You must submit this by the published deadline for the term in which you plan to graduate)
Submit the form "Final Report on Candidate" to the Graduate School (This form must be submitted to the Graduate School by the published deadline for the term in which you plan to graduate)

Master of Environmental Management Degree Checklist

For more information refer to the UND Master's student handbook. All forms, handbooks, and manuals are available on the graduate school website at: graduateschool.und.edu. Published deadlines are printed in the UND academic catalog and the Graduate School's Dates & Deadlines for each semester: http://graduateschool.und.edu/dates-and-deadlines.cfm

Many steps in this checklist have an accompanying form in the ESSP department (see Appendix) or on the Graduate School website: http://graduateschool.und.edu/graduate-students/current/forms.cfm

____ Complete undergraduate pre-requisites as stated in your admission letter (This only applies to students admitted in provisional or qualified status).

By the End of 1st Semester

____ Choose a Major Professor (if changing from original)

Please discuss your decision with your original major professor and the faculty member whom you would like to switch to. This should not be a unilateral decision that surprises your major professor or committee members, if established.

____ Select Faculty Advisory Committee

You entered the graduate program with a Major Professor (you can change who is your Major Professor if desired, please begin the process by talking to the Graduate Program Director or Department Chair). M.E.M. students select at least 2 additional faculty members to serve with your major professor on your Committee. Faculty should be asked if they are willing to serve and if they agree, list them on the. The Committee's composition must be approved by the graduate director and/or department chair. Members of the committee should be individuals who can provide constructive input to your research and program of study. Two individual must come from the ESSP Department. If you would like a committee member(s) from outside UND, please consult your major professor and petition the Graduate School for approval.

By the End of 2nd Semester

___ Submit Your Program of Study (see example in Appendix)

Discuss your career plans and Program of Study with your major professor and construct a tentative Program of Study by the end of this semester. Early in the semester, you should have a committee meeting in which your career plans and program of study are reviewed, along with your thoughts on possible internship ideas. The ESSP department recommends that MEM students complete their coursework prior to their internship experience, but this can be flexible.

____ Research opportunities for your Internship

In consultation with your major professor, and your advisory committee, search for Internship opportunities that fit your graduation timeline. Your Internship must be approved by your committee, plus the graduate director and the department chair prior to you accepting an offer.

MEM checklist cont.

plan to graduate)

By the End of 1 st Summer Defend your Internship Proposal Your defense will take place with the committee only; they will listen/observe your proposal presentation and provide constructive feedback and potentially suggest changes. Changes should be completed in a timely manner and reviewed by your major professor.
Getting Ready to Graduate Submit a Topic Proposal of Your Research to the Graduate School (Submit no later than the semester before you plan to graduate) The Topic Proposal form can be found on the UND Graduate School website. This should be submitted once you have defended your internship proposal and made any necessary changes requested by your committee. Please note that you must phrase this summary similar to a science-based research project, rather than a summary of job responsibilities.
Advance to Candidacy (You must be advanced to candidacy no later than the semester before you plan to graduate.) You can be advanced to candidacy after you have the following: completed any undergraduate prerequisites and be in 'approved' status, your program of study approved by the Graduate School, a faculty advisor and committee established, and at least 12 graduate credits with a 3.0 GPA. You will be mailed a status sheet from the Graduate School along with a graduation application.
Apply to Graduate You must submit this application by the published deadline for the term in which you plan to graduate- see the Graduate School website for dates.
Submit Final Evaluation Form from Internship Site This should be signed by your major professor and submitted to the Graduate Director.
Finish Internship Report You will finish writing the report after you complete the internship. Ask your committee how much time they would like to have to review your report before your defense (e.g. 1-2 weeks, 1 month, etc.). When you have a draft ready, submit it to your major professor for review before sending it to the whole committee. You and your major professor should then discuss dates for your defense with the committee.
Defend your MEM Internship Report This is a public presentation of your internship experience. Once your report is complete, and has been reviewed and approved by your committee, you will set a date for your defense.

__ Submit Final Copy of Internship Report to ESSP Department
When you have completed any requested revisions, please submit a final copy of your report to the

When you have completed any requested revisions, please submit a final copy of your report to the department office- this may be a paper or electronic copy.

____Submit the form "Final Report on Candidate" to the Graduate School (This form must be submitted to the Graduate School by the published deadline for the term in which you

Doctoral Degree Checklist

For more information refer to the UND Doctoral student handbook and the Style and Policy Manual for Theses and Dissertations. All forms, handbooks, and manuals are available on the graduate school website at: graduateschool.und.edu. Published deadlines are printed in the UND academic catalog and the Graduate School's Dates & Deadlines for each semester. Published deadlines are printed in the UND academic catalog and the Graduate School's Dates & Deadlines for each semester:

http://graduateschool.und.edu/dates-and-deadlines.cfm
Most steps in this checklist have an accompanying form on the Graduate School website:

Most steps in this checklist have an accompanying form on the Graduate School website: http://graduateschool.und.edu/graduate-students/current/forms.cfm

By the End of 4th Semester – the End of 2nd Year

___ Comprehensive/Qualification Exam

Your advisory committee will prepare and administer a comprehensive/qualification exam to evaluate your knowledge and ability of conducting researches in the general area of your intended research field. The exact format of this examination will be decided by your committee; it could be written, oral or a combination of two. You have to submit Doctoral Comprehensive Examinations form to the School of Graduate Studies at least 21 calendar days prior to the scheduled beginning dates of the comprehensive/qualification exam.

___ Defend Research Proposal

Prepare your research proposal by working in collaboration with your major professor and committee members. Ask your committee how much time they would like to have to review your proposal before your defense (e.g. 1-2 weeks, 1 month, etc.). When you have a draft ready, submit it to your major professor for review before sending it to the whole committee. You and your major professor should then discuss dates for your defense with the committee. Your defense will take place with the committee only; they will listen/observe your proposal presentation and provide constructive feedback and potentially suggest changes. Changes should be completed in a timely manner and reviewed by your major professor. You research proposal will be written as a grant application.

Submit Grant Application	for Dissertati	ion Funding	according to	solicitation	deadline
It is highly recommended that	you submit y	our proposed	l research for	external fun	ding.

Conducting Research and Writing Dissertation

___ Format of a Dissertation

A Ph.D. dissertation is a lengthy body of text that presents an exploratory study or argues in support of a particular hypothesis. A vital characteristic of a Ph.D. dissertation is that it presents an original contribution in a substantial form. One side of a scientist's work is communicating his or her discoveries to colleagues in a comprehensive, logical and defensible form; one can consider dissertation a proof that a Ph.D. candidate is able to do this side of scientific work. Traditionally, dissertation is written in a form of a lengthy manuscript, presenting an introduction to the particular area of study, literature review, results of the original research, discussion results' implications, and conclusion.

In addition to the traditional "manuscript" dissertation format, the students have an option of a "three article" format. If a student selects this format, (s)he will write at least three scientific articles based on their dissertation research and submit the papers to peer reviewed journals indexed by Scopus or Web of Science. The student should make at least 50% contribution to each article, as determined by the authors order or an acknowledgement. It is expected that at the moment of dissertation defense, at least one of these articles will be accepted for publication, with the others being in review. The dissertation will consist of the introductory section, presenting general outline of student's research, three or more chapters each consisting of a research article with minimal modifications, an overall discussion section, which would integrate research results, and/or conclusion section. The student should be expected to select the dissertation format at time of topic proposal; otherwise the format can be changed by the dissertation committee. The journals should be peer-reviewed, major scientific journals, relevant to student's topic or research, and have to be selected in consultation with student's major professor. Publications in "predatory publishing" venues are actively discouraged.

Getting Ready to Graduate Submit a Topic Proposal of Your Research to the Graduate School (Submit no later than the semester before you plan to graduate) The Topic Proposal form can be found on the UND Graduate School website. This should be submitted once you have defended your dissertation proposal and made any necessary changes requested by your committee. Advance to Candidacy (You must be advanced to candidacy no later than the semester before you plan to graduate.) You can be advanced to candidacy after you have the following: be in 'approved' status, your program of study approved by the Graduate School, a faculty advisory committee established, your scholarly tools completed and your department's comprehensive exams passed, a substantial portion of your graduate credits with a 3.0 GPA, and your dissertation proposal approved by the Graduate School. You will be mailed a status sheet from the Graduate School along with a graduation application. _ Apply to Graduate You must submit this application by the published deadline for the term in which you plan to graduatesee the Graduate School website for dates. Submit the "Preliminary Approval of Your Dissertation" form

School website for dates and forms.
Submit the "Notice of Dissertation Defense" form This must be submitted to the Graduate School two weeks in advance of your defense. (Preliminary Approval must have been submitted on or before the deadline)
Defend your Dissertation This is a public presentation of your research. Once your dissertation is complete, and has been reviewed and approved by your committee, you will set a date for your defense. (Your defense must be completed at least two weeks prior to graduation.)
Submit a Draft Copy of Your Dissertation to the Graduate School This must be checked for Format and Style (Do this after you have received preliminary approval.)
Submit a Final Copy of Your Dissertation to the Graduate School (You must submit this by the published deadline for the term in which you plan to graduate)
Submit the form "Final Report on Candidate" to the Graduate School (This form must be submitted to the Graduate School by the published deadline for the term in which you plan to graduate)
Complete Required Surveys (Once you have turned in the final copy of your dissertation)

This must be submitted to the Graduate School on or before the published deadline- see the Graduate

VII. Appendixes

ESSP Department Forms

The following are available in the ESSP network P-drive file named 'Graduate Student ESSP Forms':
Change of Degree
Application for Directed Study- ESSP 594
Instrument Use Agreement
Internship Evaluation
MEM Written and Oral Exams
Cover Page for MEM Report

Example forms:

Program of Study for MS, MEM, PhD

Research Proposal - Example Outline

Although there are a variety of ways to format your research proposal, the following is provided as a straightforward guide. Your major professor and/or advisory committee may ask for specific changes from this example. Any work you have already completed on your project should be clearly stated in the appropriate proposal sections. Please note- PhD students will blend this outline with their specific grant application under guidance from their advisory committee. (15-30 pages)

- Note: The ESSP department strongly encourages all students to have a copy of the following book; it is a valuable reference for writing research papers and thesis/dissertations.
 - o Booth, W.C., Colomb, G.G., and J.M. Williams (2008). *The craft of research*. Third edition. University of Chicago Press, Chicago.
- I. Abstract
- II. Introduction
 - a. The problem and its setting
 - b. Purpose of the study
 - c. Hypothesis or guiding questions
 - d. Significance of the study
 - e. Study objectives
- III. Background or Literature Review
- IV. Methodology
 - a. Type of research method to be used and its assumptions and limitations
 - b. Theoretical framework, or
 - c. Data needed (or already gathered)
 - i. Data collection and analysis strategies
 - d. Site of research
 - i. Why selected and a brief description of it
- V. Expected Results and Outcomes
- VI. Research timeline- provide an outline of when you plan to accomplish tasks
- VII. References

Internship Proposal - Example Outline

Although there are a variety of ways to format your research proposal, the following is provided as a straightforward guide. Your major professor and/or advisory committee may ask for specific changes from this example. (5-15 pages)

- I. Abstract
- II. Introduction
 - a. Describe the internship site and its context
 - b. Goals/Learning objectives of the internship
- III. Background
 - a. Provide background information about the internship site
 - i. e.g. history of government agency, non-profit organization, etc.
 - b. Why did you choose this site?
- IV. Project/Responsibilities
 - a. Outline what you will be doing and learning
 - b. Outline your internship work schedule and overall timeframe

Resource Links for additional information:

- UND Code of Student Life Handbook: http://und.edu/student-affairs/code-of-student-life/
- $\bullet \quad UND \; Graduate \; School \; Handbooks: \; \underline{\text{http://graduateschool.und.edu/graduate-students/current/handbooks-and-guides.cfm} \\$
- UND Graduate School website: http://graduateschool.und.edu/