

Master of Science  
Environmental Science and  
Marine and Estuarine Science



**Graduate Student Handbook  
2022 – 2023**

# Table of Contents

## 1.0 Course Work

- 1.1 Graduate Plan of Study
  - 1.1.1 Amendment to Graduate Plan of Study
- 1.2 Independent Study Contract and Registration Approval
- 1.3 Specialization Courses
- 1.4 Grades and Grading

## 2.0 Thesis and Timelines

- 2.1 Thesis/Research Proposal
- 2.2 Proposal Format
- 2.3 Thesis Committee
  - 2.3.1 Special Requirements for “Off Campus” Committee Members
  - 2.3.2 Considerations when Selecting Committee Members
- 2.4 Thesis Topic Approval
- 2.5 ESCI 690 – Thesis Research
  - 2.5.1 Grad School Requirements for Registration of Thesis Credits
- 2.6 Annual Review of Graduate Student Progress
  - 2.6.1 Approach
  - 2.6.2 Termination from Program
  - 2.6.3 Appeals
- 2.7 Timeline for Completion of Degree
  - 2.7.1 Continuous Enrollment Requirement
- 2.8 Extension of Graduate Program
- 2.9 The Thesis
- 2.10 Master’s Degree Application
- 2.11 Public Presentation
- 2.12 Oral Defense
- 2.13 Degree Deadlines
- 2.14 Delivering Thesis for Copying and Printing
- 2.15 Binding and Printing
- 2.16 Diploma and Degree Posting

## 3.0 Funding, Safety, Travel and Miscellaneous

- 3.1 Funding Opportunities for Grad Students
  - 3.1.1 Academic Load
  - 3.1.2 Teaching Assistants (TA)
  - 3.1.3 Research Assistants (RA)
  - 3.1.4 Temporary Exempt Staff
- 3.2 Enrollment Requirements for Financial Aid
- 3.3 Grants and Research Funds
  - 3.3.1 College of the Environment Small Grant
  - 3.3.2 Research and Sponsored Programs (RSP)
- 3.4 Using Grants for Thesis Research (On-Campus Sources)
- 3.5 Using Grants for Thesis Research (Off-Campus Sources)
- 3.6 Ross Travel Grant
- 3.7 HEALTH INSURANCE AND ON-CAMPUS MEDICAL CARE INFORMATION
  - 3.7.1 Student Health Center
  - 3.7.2 WWU Student Health Insurance Plan
- 3.8 Safety Training
- 3.9 Travel – Regulations and Procedures
  - 3.9.1 Van Rentals from ENTERPRISE (12-Passenger)
    - 3.9.1.1 Vehicle Reservations
    - 3.9.1.2 Van Training
    - 3.9.1.3 International Van Travel

### 3.10 College of the Environment Graduate Faculty

Attachment 1 – Master of Science, Environmental Science Program Checklist

Attachment 2 – Ideal 2-Year Timeline

Attachment 3 – ESCI Program Contacts

## 1. **COURSE WORK**

### 1.1. **GRADUATE PLAN OF STUDY** -- required (DEGREE WORKS)

The "Plan of Study" is required by the Graduate School outlining the courses you plan to complete for your degree. It identifies minimum curricular requirements and specifies when requirements are due. The Plan of Study should be completed during your first quarter. Failure to complete the plan will result in a registration hold. Together, you and your adviser identify the appropriate course work.

#### **Required Coursework:**

- ESCI 501 - Research in Environmental Science (3)
- **MESP**: BIOL 521 – Intro to Biology Research (1)
- 12 credits of ESCI 690 - Thesis Research (Can extend to up to 36 credits for Financial Aid purposes)
- 3 specialization courses (see links below)
- Electives to **total 45 credits** (\*Note: **Excess Thesis Credits do not count towards elective requirement**)

#### Additional Coursework Considerations:

- Maximum of 10 credits of 400-level courses allowed
- Maximum of 10 credits of Directed Independent Study (ESCI 500) allowed
- Maximum of 12 quarter or 9 semester credits of transfer courses allowed

After completing the DEGREEWORKS Plan, talk with your faculty adviser. When approved, notify the Graduate Student Coordinator, who will approve and lock your official plan of study. **Changes to the Plan of Study require an amendment.** Contact the Graduate Student Coordinator to unlock your plan for editing. When you apply for your degree, the Plan is compared with courses completed for the degree evaluation

#### 1.1.1. **AMENDMENT TO THE GRADUATE PLAN OF STUDY** (DEGREE WORKS)

If it becomes necessary to make changes to your Plan of Study, the Graduate School requires an update be made to your Degree Works Plan of Study.

### 1.2. **INDEPENDENT STUDY CONTRACT AND REGISTRATION APPROVAL** (E-sign)

Graduate independent study courses (ESCI 500) are available to enable students to pursue educational experiences not available through the regular graduate courses listed in the catalog. Specific guidelines for development and restrictions from the Graduate School are listed at: <https://gradschool.wvu.edu/policies>

**SPECIALIZATION COURSES** -- Select at least **three courses** from your chosen area of specialization and list them on your Plan of Study:

- [Environmental Science, Environmental Toxicology & Chemistry, Thesis, MS](#)
- [Environmental Science, Freshwater and Terrestrial Ecology, Thesis, MS](#)
- [Environmental Science, Marine and Estuarine Science \(MES\), Thesis, MS](#)
- [Environmental Science, Energy-Environmental Systems, Thesis, MS](#)

### 1.3. **GRADES AND GRADING**

Students *must* maintain a 3.0 GPA in courses listed on the Plan of Study. Classes with satisfactory/unsatisfactory (S/U) grading are allowed, but not computed in your GPA. A maximum of 10 credits of C+ or U grades are allowed; however, required courses graded "unsatisfactorily" (S/U) must be repeated. Pass/no pass grades are not applicable toward a graduate degree. Incomplete (K) grades *must* be completed within one calendar year from quarter posted, an incomplete received in fall must be removed by the end of the following fall or convert to a failing grade of Z (ideally the student and instructor will have a written agreement as to when the work will be complete). Incomplete (K) grades received for thesis credits are an exception to the one-year time limit. Your adviser will change the K grades after completion of thesis defense and Degree Recommendation.

## 2. **THESIS AND TIMELINES**

### 2.1. **THESIS / RESEARCH PROPOSAL:**

You should plan to meet with your adviser early and often to begin discussing a thesis topic. You should pursue a research hypothesis that is particularly intriguing to you that is within your capability and the expertise of your adviser. Your adviser and committee members are useful for guidance and questions about various aspects of your thesis project. Consider time requirements (experiment and writing, availability of equipment, and projected budget). [Students whose research involves human subjects \(including surveys\) or live vertebrate animals must comply with University policies regarding these types of research.](#) Approval **must** be obtained **before** research begins.

### 2.2. **PROPOSAL FORMAT:**

Faculty may expect to see a written proposal before agreeing to serve as a committee member and approving the Thesis Topic Approval. There is no set format for a proposal, but it should include the following:

- Specific hypothesis or hypotheses
- A brief statement on the research hypothesis and its scientific significance
- Methods that will be used to test the hypothesis, with explanations of how the tests will be concluded
- Expected results
- A statement of the applications and importance of the research
- A review of the relevant literature
- References
- Project budget

**NOTE:** This type of proposal, with minor modifications, can be submitted to the Graduate Program Committee for College of the Environment research funds both fall and spring, and to the Office of Research and Sponsored Programs (RSP) for university research funds available each quarter for the following year.

### 2.3. **THESIS COMMITTEE:**

Your thesis committee will advise you, approve the proposed research topic, and conduct the final oral examination. They are a great resource throughout your graduate program. The committee consists of three members: the chair and second member must be graduate faculty in the College of the Environment, whereas the third committee member can be from the College of the Environment, WWU or the professional community. **MESP** students can create a committee with one graduate faculty member from the College of the Environment, one research professor from Shannon Point Marine Center, and a third member from the College of the Environment, WWU, or the professional community, upon approval from the Graduate School. All members must attend your oral defense (keep this in mind when considering out-of-town members).

**2.3.1. Special Requirements for “Off Campus” committee members:** Email the Graduate School ([gradschool@wwu.edu](mailto:gradschool@wwu.edu)) with the Name, Environmental Science Program, his/her title, preferred email address

**2.3.2. Considerations when selecting your thesis committee:** What are their research interests and expertise? Can they provide guidance necessary to complete your thesis? Will you be comfortable with the scientific approaches they are likely to recommend? What will they be like to work with? Are they supportive, reliable, constructively critical, and able to communicate well with you? How busy are they? How well do they work with other faculty members on your committee? Are they likely to be helpful in getting you a job or into a Ph.D. program? What is their reputation in their field? How strongly will they support you when writing letters of recommendation?

#### 2.4. [THESIS TOPIC APPROVAL](#) [E-sign] – required

Before registering for thesis credits, your topic and committee must be approved. This form indicates you have a thesis committee and research topic and demonstrates you have been in communication with your adviser and are making progress in your graduate research. This form must be approved by your entire thesis committee. Generally, this happens after your thesis committee members have reviewed your **written** research proposal, and you have met with your committee to discuss the proposal.

#### 2.5. **ESCI 690 - THESIS RESEARCH** (12 credits) -- [registration]

To register for thesis credits, you must be in the Advanced to Candidacy stage, meaning:

- Your Plan of Study has been approved by the Graduate Dean and is on file in the Graduate School
- You have completed a minimum of 12 cr. of coursework listed on your Graduate Plan of Study while maintaining a 3.0 (B) grade point average
- The Thesis Topic Approval is completed and on file in the Graduate School

Once these criteria are met, you can start taking thesis credits. A minimum of 12 thesis credits are required (repeatable to 36 credits for financial aid purposes). Thesis credits are graded incomplete (K) until the Degree Recommendation. Your adviser will submit the appropriate S or U to the Graduate School. In environmental science 12 credits will convert to S (satisfactory) or U (unsatisfactory) following submission of the Degree Recommendation. If you have registered for more than 12 thesis credits, they will either be awarded at the same time, or may remain incomplete on your transcript (If extra credits are not needed for graduation).

**2.5.1. Graduate School guidelines to register for thesis credits:** If you want to register for thesis credits, you will need to receive overrides from both your academic department and the Graduate School. [Thesis Topic Approval](#) must be on file for overrides to be issued.

#### 2.6. **ANNUAL REVIEW OF GRADUATE STUDENT PROGRESS**

Environmental Science has developed a procedure to assess our graduate students' overall research progress prior to the final defense. This is an objective method to identify students who are not making satisfactory research progress and a systematic way to notify students concerning their progress in developing and completing their thesis research.

**2.6.1 Approach:** The Graduate Program Committee (GPC) will meet annually with each M.S. student for a short (ten minutes), scheduled appointment to discuss the student's progress toward the M.S. degree. Prior to each meeting the student's advisor will be asked to submit an assessment of whether the student is making satisfactory progress toward the M. S. degree, based on the following minimum guidelines:

<u>Timeline</u>	<u>Criteria for satisfactory progress</u>
Year 1	Completion of 12 credits of 400- and 500-level classes with a grade of 3.0 or better Acceptance of the Plan of Study (1 <sup>st</sup> Yr Grads will not require an in-person review) Selection of a thesis committee, approval of the research proposal and Thesis Topic Approval e-sign (upon meeting with committee)
Years 2-5	Satisfactory research progress will be determined by the student's committee

Following the meeting each graduate student will receive an email from the GPC stating whether they are making satisfactory progress toward their thesis research. If not, the email will list deficiencies noted by the GPC, and the student will be advised to meet with the advisor and the thesis research committee as soon as possible.

**2.6.2 Termination from the Graduate Program:** Students who fail to make satisfactory progress for two consecutive years will be terminated from the graduate program unless the student's advisor recommends in writing to the GPC that the student be retained in the program.

**2.6.3 Appeals:** Students who receive an unsatisfactory rating on their research progress may appeal that finding to the GPC in writing within 5-Working Days.

**2.6.3.1** The GPC will notify the advisor and student of its decision within 10-Working Days after receipt of the appeal. If additional time is needed to evaluate the appeal, the GPC will provide an initial status update to the student and advisor within the 10-Working Day limit and give an anticipated completion date.

**2.6.3.2** If the unsatisfactory rating is not overturned, the student may submit a written appeal to the Dean of the College of the Environment within 10-Working Days of notification from the advisor/GPC. The Dean of the College of the Environment will notify the advisor and student of decision within 10-Working Days after receipt of the appeal. If additional time is needed to evaluate the appeal, the Dean will provide an initial status update to the student and advisor within the 10-Working Day limit and give an anticipated completion date.

**2.6.3.3** If the unsatisfactory rating is not overturned by the Dean of the College of the Environment, the student may submit a written appeal to the Dean of the Graduate School within 10-Working Days of notification from the Dean of the College of the Environment. The Dean of the Graduate School will notify the student, Dean of the College of the Environment and the Faculty Advisor of final decision.

## 2.7. TIMELINE FOR COMPLETION OF DEGREE

All requirements must be completed within 5 years. Students who have not completed their program after 3 years are required to file a plan for completion within the 5-year limit. Otherwise, it is understood that the student has decided to withdraw from the program. Below is a sample timeline to submit to the Graduate School due to (a) not graduating after 3 years or (b) excess registration of thesis credits. Specific dates or quarters are required for everything you have not completed.

### 2.7.1. CONTINUOUS ENROLLMENT REQUIREMENT

**Graduate students must maintain continuous enrollment from their first quarter of registration until completion of all degree requirements.** Continuous enrollment is defined as registering for at least one credit in all academic quarters (excluding summer) until the degree is attained or status as a degree-seeking graduate student is terminated.

- Students who have not completed all degree requirements and are not currently registered for any credits will be required to register for GRAD 699, Continuous Enrollment, every quarter (excluding summers) until all degree requirements are completed. GRAD 699 is non-graded, Exception: If you are graduating during Summer Quarter and are not enrolled in any other credits, you must enroll in GRAD 699 during summer.
- If you are enrolled in ANY academic credits during the quarter, GRAD 699 is not required.
- Students who maintain Continuous Enrollment will be allowed to complete their degree under the policies and requirements in place at their date of matriculation.
- Registration for GRAD 699 maintains many privileges associated with full or part time university enrollment, such as access to Western Libraries, technology, and research facilities.
- Registration for GRAD 699 does not meet minimum enrollment requirements for Financial Aid or status as a Teaching Assistant.
- Western Washington University employees receiving state waivers in pursuit of their graduate degree are exempt from the Continuous Enrollment requirement.
- Failure to register for GRAD 699 when required will result in disenrollment from the Graduate Program and require application for readmission at the discretion of the program.

TIMELINE FOR COMPLETION OF DEGREE	
PRINT OR TYPE YOUR NAME AND WESTERN ID	PRINT OF TYPE YOUR THESIS CHAIR NAME
<b>Action Item</b>	<b>Date/Quarter Completed or Projected</b>
Complete all prerequisites and/or admission stipulations	
Completion of remaining courses on Plan of Study	
Submission of Thesis Topic Approval	
Completion of Research	
Completion of Literature Review	
Completion of Analysis	
Submission of First Thesis Draft	
Submission of Subsequent Drafts	
Anticipated Quarter of Graduation	
Tentative Date of Thesis Defense	
Submission of Oral Defense Schedule ESIGN	
Submission of defended thesis to Grad School	
Submission of Master's Application	
Submission of Degree-Recommendation	
<b>Student's Signature: _____</b>	<b>Date: _____</b>
<b>Thesis Chair's Signature: _____</b>	<b>Date: _____</b>

## 2.8 EXTENSION OF GRADUATE PROGRAM

You can request an extension (1-3 quarters) for completing the degree requirements if you are unable to finish within the 5-year requirement. The following steps should be taken in making this request: Discuss, then request, an extension with your thesis chair. Your thesis chair and the program adviser determine if they will support the request. You and your adviser work to develop a mutually agreed upon timeline if the extension is supported. The request, faculty statement of support, and detailed timeline are submitted to the Graduate School.

## 2.9 THE THESIS

The thesis is the culmination of your graduate work and the purpose of the Master's degree. It demonstrates you are capable of completing an original and independent research project: designing and implementing a research plan and reporting on the investigation in a proper scientific manner--all in a timely fashion. Writing a thesis teaches how to plan and carry out a research project, how to negotiate work through revisions and how to manage your time. If difficulties arise, or modifications are necessary, it is important that you discuss the matter with all committee members--*preferably as a group rather than individually*. A thesis can get out of hand - longer does not necessarily mean better! The outline of the thesis should be developed early and revised often--with frequent review by your adviser. The style of the thesis should be discussed with and approved by your adviser. One style is to write a portion of the thesis in journal publication format, which can help in the development of a manuscript for publication.

The Graduate School provides [Thesis Guidelines](#) on their website. Your *first draft* should be completed and presented to your adviser during the quarter **prior to the quarter you wish to graduate**. When the thesis has undergone sufficient revision and when your adviser agrees, a draft of the thesis is circulated to your entire committee. The committee should have at least *two - three weeks* to read it **before the date you have scheduled for your oral defense**. Some rewriting should be anticipated at each stage of this review process.

## 2.10 MASTER'S DEGREE APPLICATION [E-sign] – required

The application for degree must be submitted by the **last day of classes (end of dead week) in the quarter prior** to the quarter you intend to graduate. Double-check to be sure all graduation requirements have been met before submitting the application. If you don't meet the deadlines for the quarter you applied, **you will have to apply again**. WWU does charge an application fee for your first Master's Application Form. Changes to the date are not charged additional fees.

## 2.11 PUBLIC PRESENTATION – required

A public presentation of the data, analysis, logic, philosophy, and conclusions of the thesis must be given to a College of the Environment audience. This is carried out in the form of a seminar. You should complete your public presentation when college is in session unless you have special approval from your thesis committee. Ideally, your entire committee will be in attendance and you can then adjourn to your oral defense.

## 2.12 ORAL DEFENSE – required

An oral defense with all your thesis committee present is required and must be scheduled within an academic quarter. The oral defense may cover any aspect of your education, but usually the questions are concerned with the thesis itself. You should discuss with your adviser the nature of the oral defense and prepare accordingly.

### SCHEDULING & PREPARING FOR DEFENSE

#### **Two weeks before your defense:**

- Schedule your public presentation and oral defense
- Submit the [Oral Defense Schedule](#) to Graduate School
- Send copy of thesis to committee members

#### **One week before your defense:**

- Deliver the latest draft of your thesis to the Graduate School for review by the Graduate Council representative. The role of the Graduate Council representative at your defense is that of student advocate-to insure impartiality.
- Give your thesis chair the latest draft for review

#### **Day of public presentation and oral defense:**

- Take a minimum of **two** signature pages to your defense (The Wilson Library requires 1-hard copy printing of your thesis. You may need additional copies for your thesis adviser, other committee members and yourself.)
- Some committees prefer not to sign your thesis until corrections are completed and reviewed. That is generally decided by the committee at the conclusion of the defense. If this occurs, you will work with your adviser to correct the thesis to the satisfaction of the committee members then obtain the required signatures on the final document.

#### **Next Steps to Graduating:**

- A final copy of the corrected thesis (addressing comments raised by committee members during the oral defense) should be turned into the graduate school by the specified deadline (found here: <http://www.wvu.edu/gradschool/graduation.shtml>)

**Thesis Submission Instructions** Master's thesis submission and approval will be handled through [CEDAR](#). This will allow more streamlined communication and processing between students, the

Graduate School, and Western Libraries.

CEDAR will also provide greater exposure and findability of thesis work. Authors will receive monthly usage statistics for their work, even after they leave Western.

### Final Step for Degree

- The student initiates the [Degree Recommendation Thesis Option](#) via e-sign. All actions for completion of your degree should be completed by this time (All grades resolved, thesis approved, etc...)

### 2.13 DEGREE DEADLINES

See [published deadlines](#) on the Graduate School website:

- In order to receive your degree, it is imperative that you complete all program requirements within 5 years. \*After 5 years, your computer account, library privileges and all other technology services will be discontinued, all associated files will be purged, and you will be withdrawn from the Graduate School unless the Graduate School has authorized an extension.

### 2.14 DELIVERING THESIS FOR COPYING AND BINDING

When the Graduate Dean has signed the original signature pages (One signature page per copy you will have printed), the Graduate School will notify you so you can deliver the signed pages to the **Haggard Hall Campus Print and Copy Services (HH 110, Phone: 360-650-3762)**. The Copy Services staff will not accept any thesis without the Graduate Dean's signature.

- The Graduate School will have sent your Thesis PDF to the copy center via the CEDAR program.
- **The signature page** (with your thesis committee and the Graduate Dean's signatures) **must still be delivered in hard copy**.
- If you ask another person to submit your thesis for printing/binding the following is required:
  - ✓ Your email address and phone number
  - ✓ The number of hard- and soft-bound copies you want
  - ✓ Any special instructions regarding photos, maps, graphs, etc.
  - ✓ Delivery instructions
  - ✓ **Payment in full must be submitted in advance for all services** regardless of who delivers your manuscript to Campus Print and Copy Services.
- We do not require the **copying** be done on campus, although they provide this service very inexpensively.
- We do require that the **binding** be done with them. This ensures that all bound theses are of standard size, color, title lettering, etc.
- At the time you place your copying/binding order, the costs for the copying, hard binding, soft binding and lettering must be paid in full. Call Campus Print and Copy Services for current charges (x3762).
- When you place your order, the type for the gold stamping of the front hard covers will be ordered. Once the type has been ordered, changes may not be made in the title, or additional fees will be charged for the re-order. **Title length on the cover can be no more than 50 spaces per line** (including punctuation and spacing), with a **maximum of 4 lines, or** 3 lines with 1 line of underlining; or 2 lines with 2 lines of underlining. (If your title is longer than this, it must be shortened for the cover, but may remain in its original length on the pages of your thesis.)
  - Have Campus Print and Copy Services deliver 1 copy to the Graduate School and the others to any on-campus office (you can have all others delivered to Ed Weber in ES 539/545A).
  - Allow six (6) weeks for the completion of your thesis copying/binding order.

### 2.15 [ORDER BINDING AND PRINTING:](#)

- **One (1) hard-bound copy is required for the Wilson Library**; additional copies made at your/your committee's discretion
  - Soft- or hard-bound copies may be provided to chair and each committee member (ask

- them if they want one)
- You should be prepared to bear the cost of duplicating and binding (approximately \$27 for each hard-bound cover, approximately \$19.00 for each soft-bound cover, 5 cents/page for copying, 30-45 cents/page color copies -- they accept Visa and MasterCard). As always, prices are subject to change.

## **2.16 DIPLOMA and DEGREE POSTING**

Your diploma will be mailed and your degree posted to your official transcript **after** ALL the hard-bound copies have been delivered to:

- **Wilson Library (one)**

Note: Outstanding fines or campus parking tickets must be paid before the diploma is issued.

### 3. FUNDING, SAFETY, TRAVEL AND MISCELLANEOUS

#### 3.1 FUNDING OPPORTUNITIES FOR GRADUATE STUDENTS:

Teaching Assistant (TA), Research Assistant (RA), and other funding options:

##### 3.1.1 **ACADEMIC LOADS** (Graduate School and Financial Aid requirements) Enrollment requirements for GRADUATE SCHOOL purposes

- A full-time Graduate Student is enrolled in 8 cr. minimum / 20 cr. maximum

##### 3.1.2 Teaching Assistant (TA):

- TAs must be enrolled in 8 credits (Full-Time) to be eligible to hold a TA-ship and receive tuition waivers and STIPENDs.
  - Exception: If you have completed ALL academic requirements (other than Thesis Credits) on your Graduate Plan of Study you may be enrolled in a minimum of two credits
- TAs are eligible for health benefits through the Graduate School
  - **If you want to participate in the Student Health Care Plan, you have to sign up for health benefits** -- they're not automatic because you're eligible or because they're provided -- **contact the Graduate School at 360-650-3170.**

##### 3.1.3 Research Assistant (RA):

- RAs are required to register for a minimum of 2 cr. each quarter (except summer)
- Graduate student employees who have completed all course work on their approved Graduate Plan of Study, except for thesis or research work, will be considered full-fee paying for Student Healthcare costs if enrolled for a minimum of two credit hours of **thesis or research**
- If you decide not to register you must be employed in an exempt position (non-student)
- RAs may receive a partial tuition waiver; check with your faculty sponsor
- RAs may be eligible for health benefits; check with your faculty sponsor
- **If your faculty advisor has authorized payment of Health Benefits, you still have to sign up through the Graduate School** -- [see TAs above]

##### 3.1.4 Temporary Exempt Staff:

These positions exist primarily to accommodate a graduate student who has RA support but is not registered for the minimum 2 cr. required for an RA. These positions may or may not provide a tuition waiver or health benefits; check with your faculty sponsor. You **CANNOT** be both a Temporary Exempt Staff and hold any type of "Student Employment" at the same time.

#### 3.2 Enrollment requirements for FINANCIAL AID (Non-TA/RA) purposes

- Full financial aid award requires registration of 8 credits or more each quarter
- Students on financial aid (those with graduate work-study and/or RA support) can work up to 40 hrs/wk during intercession--the time period when school is not in session (i.e., during the Christmas break between fall/winter quarters and during spring break, but cannot submit time for actual holidays when the University is closed, i.e., Christmas Day, New Year's Day, etc.) weekends included as long as the 40 hrs/wk is not exceeded
- You may attempt up to 125% of the credits required for completion of your program of study (however, these credits are expected to be on your approved Plan of Study)
- Students enrolled in thesis option programs are eligible for federal financial aid for the number of credits allowed by the program for thesis (**Environmental Science = 12-36 credits**)

- You are encouraged to plan your academic course loads efficiently to reduce excessive student loans; in other words, you cannot receive financial aid indefinitely

### 3.3 Grants and Research Funds

**3.3.1 College of the Environment Small Grants** – Each fall and spring the College of the Environment provides a limited number of small grants to foster and facilitate graduate research in environmental science and geography. These grants are intended only to cover small expenses, such as expendable supplies (chemicals, glassware), travel to field sites, or attendance to present results at a professional meeting. Awards are competitive and have averaged \$715 over past 10-years. Maximum duration to spend funds without requesting an extension is 18 months. Deadlines for applying are mid-October and mid-April. Your Thesis Topic Approval card must be on file in the Graduate School before these research funds will be made available. You can apply for a College of the Environment Small Grant more than once, however each proposal will be evaluated on its own merit and must show research progress from last grant.

**3.3.2 Research and Sponsored Programs (RSP)** - The Fund for the Enhancement of Graduate Research, sponsored by the Office of Research and Sponsored Programs (RSP) and the Graduate School, awards students currently enrolled in graduate programs research support in amounts up to \$1,000. Students must apply in the spring for funding the following year, therefore first year students are encouraged to apply. Awards are designed to assist students in accomplishing their thesis work (equipment, computer software, consumable items). Travel is supported only in exceptional circumstances.

### 3.4 USING GRANTS FOR THESIS RESEARCH (on-campus sources)

If you apply for a “small grant” through the College of the Environment or a Research and Sponsored Programs (RSP) grant for thesis work, the funding will be deposited into the department account. Purchases can be made with WWU purchase forms or through Purchasing, or reimbursements using services/reimbursement forms.

- Some items, such as computer software and chemicals, have specific acquisition rules that must be complied with prior to purchase. Failure to follow these rules may result in you not being reimbursed. Please consult [WWU Purchasing Office](#) or Ed Weber prior to agreeing to buy.
- All “Non-expendable” purchases become property of Western Washington University and must be turned in when you are complete with your project.
- There are various ways to spend your grant--see Ed Weber for assistance.
- Refer to the travel section below for grant money of any sort being used for travel to seminars, research sites, and any type of travel. In all cases, **keep your receipts.**

### 3.5 USING GRANTS FOR THESIS RESEARCH (off-campus sources)

Grants administered through RSP must follow guidelines. If you are overseeing a grant with your faculty adviser, all paperwork will require his/her signature. If you or anyone else (other students) are to be paid out of grant monies, you must have a Payroll Appointment form in the university payroll system before you begin working on the grant. Grants all have a designated five-digit number beginning with a “5.” See Rose Kawczynski to be placed on the payroll, for travel, for purchases, and for reimbursements.

### 3.6 [Ross Travel Grant](#)

Provides support for students to travel to present papers at professional meetings and conferences. The awards cover the amount equivalent to the minimum airfare or other public transportation cost to the conference city, with a maximum of \$500 granted to any single applicant. Ground transportation, lodging, per diem and registration fees are generally not covered.

### 3.7 HEALTH INSURANCE AND ON-CAMPUS MEDICAL CARE INFORMATION

### 3.7.1 STUDENT HEALTH CENTER - website at [http://www.wvu.edu/chw/student\\_health/index.shtml](http://www.wvu.edu/chw/student_health/index.shtml)

Graduate students taking at least 3 credit hours have the option of paying the Health Services fee for the quarter so they can utilize services if they choose to. A signed authorization form, available from a Health Center receptionist, is necessary. In general, students enrolled in 6 or more credits are automatically billed the fee for the quarter.

If you are serving as a graduate TA or an RA, you may be enrolled for as few as three (3) credits and still be eligible for services from the Student Health Center (notify the Graduate School so your account can be manually charged)

### 3.7.2 [WWU STUDENT HEALTH INSURANCE PLAN](#) -- See Student Health Center website above

This insurance plan is available to any WWU student who meets eligibility requirements as stated in the plan brochure; however the Graduate School will pay your premiums on a quarterly basis if you are a Graduate Teaching Assistant.

## 3.8 [SAFETY TRAINING](#)

The University has a responsibility to provide safety training to new employees and students who will be working with chemicals and performing hazardous tasks. It is the responsibility of each faculty member to ensure that his or her employees and students are trained. Contact Environmental Health & Safety (x3064) for the safety orientation checklist and the specific job safety orientation for new employees including student workers.

Graduate students who perform research in the field and laboratory should be trained in issues such as chemical safety, fire safety, and transport of equipment and chemicals in vehicles (personal and university). In addition, personal protective equipment, hazard communication, lab safety, and hazardous waste handling are other topics that should be reviewed.

**Environmental Science TAs are required to contact Scott Wilkinson ([Scott.Wilkinson@wwu.edu](mailto:Scott.Wilkinson@wwu.edu)) ES 422, x3667) prior to the beginning of each quarter for lab safety training information.**

## 3.9 [TRAVEL--Regulations and Procedures](#)

**First, consult your department manager Rose Kawczynski (x2844) about procedures.** A Travel Authorization form is required prior to traveling to seminars, research sites, etc. A Travel Expense Voucher is required upon your return. You will need a Travel Authorization number in order to book your travel. Airline travel must go through a state-qualified travel agent. **Do not charge airfare to your private credit card.** Refer to the [WWU Travel Desk site](#) on-line for the currently-approved local travel agencies.

For all policies regarding student travel, to include day-trips, please review the [Student Travel Rules](#).

### 3.9.1 Van Rentals from ENTERPRISE (12-Passenger) - Regulations and Procedures

#### 3.9.1.1 Vehicle\_Reservations

As a TA, or when conducting research, you may be asked to reserve a 12-passenger van from Enterprise and drive the van for the class. Contact department manager, Rose Kawczynski as early as possible for complete instructions and van rental procedures. Information you will need to provide:

- Date of trip
- Time of pick up and return of vehicle
- Destination

- Purpose of Trip
- Driver's Name

Vehicles must be reserved for individual trips. Please cancel vehicle reservations if plans change.

#### 3.9.1.2 [Van Training](#)

Any driver, faculty, staff, student, or volunteer, operating a 12-passenger van on behalf of WWU **must at least age 21, have 5 years driving experience** and complete both the state required large passenger van training **every two years**. Drivers and their supervisors are responsible for monitoring this. It's a 4-part course involving a PowerPoint presentation, quiz and completion of two state forms that need to be printed, completed and signed by the driver and her/his supervisor. The completed forms stay with departmental files. Secure training early in the year in order to be prepared for potential TA assignments. Van training is provided by Risk Management (x6582). Training is available on Canvas.

#### 3.9.1.3 International Travel with Van

Vans larger than 10-passenger may not be driven into Canada. Multiple smaller vans would need to be driven if taking more than 10-persons.

### 3.11 [COLLEGE OF THE ENVIRONMENT GRADUATE FACULTY](#)

A faculty member from this list has agreed to serve as your research adviser and will serve as the chair of your thesis committee. Faculty marked with an [\*] generally serve as faculty advisers for environmental science graduate students. For all specializations other than MESP, at least two faculty members from this entire list will serve on your thesis committee. If you want to change advisers, you need to find another faculty member who agrees to fill that role.

**Troy Abel** -- environmental policy, conservation politics, civic environmentalism, policy analysis, globalization and environmentalism

**Andy Bach** -- physical geography, geomorphology, soils and weathering, water resources, geoarcheology, Elwha Dam removal and restoration, landforms of the Missoula Floods

\* **Charles Barnhart** – interaction of Earth systems and societal energy use. I employ net energy analysis, life cycle assessment and GIS to explore the energy and environmental impacts of energy resources and technologies.

**Gigi Berardi** -- all-hazards planning, resource management, agroecology, food security, international development

\***Brian Bingham** -- invertebrate biology, marine ecology, experimental design

\***Leo Bodensteiner** -- fisheries biology, aquatic ecology, fish ecology

**Pat Buckley** -- optimization modeling, economic and development geography, quantitative/qualitative methods

\***Andy Bunn** -- climate change, paleoecology, energy, ecological modeling

\***Rebecca Bunn** -- belowground ecology, toxicology, restoration, energy

**Kate Darby** -- social and environmental justice, environmental justice pedagogy in higher education, sustainable food systems and urban socio-ecological systems

**Aquila Flower** – long-term roles of climatic variability, human land use patterns, and natural disturbances in shaping forest ecosystem dynamics

**Nini Hayes** - equity centered teaching and learning, social justice education, the work of teacher educators of color, critical race theory, and critical environmental justice studies

\***Jim Helfield** -- ecology of rivers and riparian forests, terrestrial-aquatic ecosystem linkages, watershed management and restoration

**Steven Hollenhorst** – land use policy and management; land trusts and conservation easements; and environmental leadership

**Nabil Kamil** – Uneven urban development, social/environmental justice, urban informality and disaster recovery

\***Sam Kastner** – Mixing and transport in the coastal ocean, including but not limited to river plumes, ocean surface waves, and the dynamics of hypoxia.

\***Alia Khan** -- Aquatic Biogeochemistry, Cryosphere-Atmosphere-Climate interactions, light absorbing

aerosols, spectral geophysics, drinking water quality, glacial hydrochemistry and climate adaptation.

**\*Robin Kodner** -- characterizing the genetics of snow algae communities

**\*Wayne Landis** -- environmental toxicology, population biology, risk assessment

**Tammi Laninga** -- federal land use policy and planning, collaborative planning, community economic development, and the social components of bioenergy development

**\*Brooke Love** -- ocean acidification, and its effects on food webs, and the role of marine vegetated areas in marine chemistry

**\*John McLaughlin** -- terrestrial ecology, population biology, conservation biology

**\*Erika McPhee-Shaw** -- Physical oceanography, coastal oceanography, ecology, sediment transport, internal wave interactions on the continental shelf

**Mike Medler** -- biogeography, GIS, remote sensing, forest fire and wilderness management

**Jean Melious** -- environmental and land use law and policy, international environmental policy

**James Miller** -- Indigenous architecture and spatial production, anti-colonial urbanism, inclusive urbanism, Climate Change adaptation and resilience, Placemaking, post-disaster reconstruction and disaster resilience, remote housing and localized building processes

**\*Manual Montano** -- environmental analytical chemistry, geochemistry, colloid and nanoscale chemistry

**Gene Myers** -- environmental education, conservation psychology, evaluation, environmental ethics, human ecology

**Mark Neff** -- understanding and improving the policies governing science to better serve the public interest, and the use and uptake of scientific information in formal and informal environmental decision making. I have a particular interest in controversies involving dynamic social-ecological systems and comparatively static policy structures and knowledge systems.

**Rebekah Paci-Green** -- community-based risk communication for disaster risk reduction and planning; integrating hazards assessment, culturally appropriate construction, and disaster planning into schools in less-developed countries; built environment and natural hazards in less-developed countries; science communication

**David Rossiter** -- cultural-historical geography, political-ecology, Canada

**\*John Rybczyk** -- wetlands ecology and management, ecosystem modeling, global climate change

**\*Imran Sheikh** -- reducing greenhouse gas emissions in the buildings sector, with a focus on electrification of residential space and water heating.

**\*David Shull** -- structure and function of marine benthic communities, pollution and marine ecosystems

**\*Froylan Sifuentes** -- decarbonization pathways for energy systems, mobility electrification, demand response, and the water-energy nexus of decarbonization the electricity grid.

**\*Kathryn Sobocinski** - juvenile fishes in marine ecosystems, fish habitats, and impacts of human disturbance in coastal ecosystems; use of statistical and individual-based models

**\*Ruth Sofield** -- aquatic toxicology, biochemical and genetic toxicology, and environmental chemistry

**Nick Stanger** -- environmental education, sense of place, indigenous education, environmental refugees, curricular studies, complexity theory, resiliency, eco-critical thought, post-structuralism, and existentialism

**Paul Stangl** -- pedestrian planning, New Urbanism, urban landscapes, memory and meaning; Europe and Berlin

**\*Angela Strecker** - anthropogenic stressors in freshwater ecosystems, such as invasive species, climate change, habitat connectivity, and contaminants; approaches include field surveys, small-scale and large-scale experiments, and statistical modeling.

**\*Joel Swisher** - analytics of electric utility resource planning; integration of variable renewable sources and plug-in vehicles with the power grid; new business models for energy efficiency and greenhouse gas management in organizations.

**\*David Wallin** -- terrestrial ecology, forest ecosystems, remote sensing/drone use

**Grace Wang** -- natural resource policy, cultural resources management, community-based forestry

**Xi Wang** - energy policy and planning, political economy of electricity systems, energy infrastructures, climate governance, climate planning in community and organizations

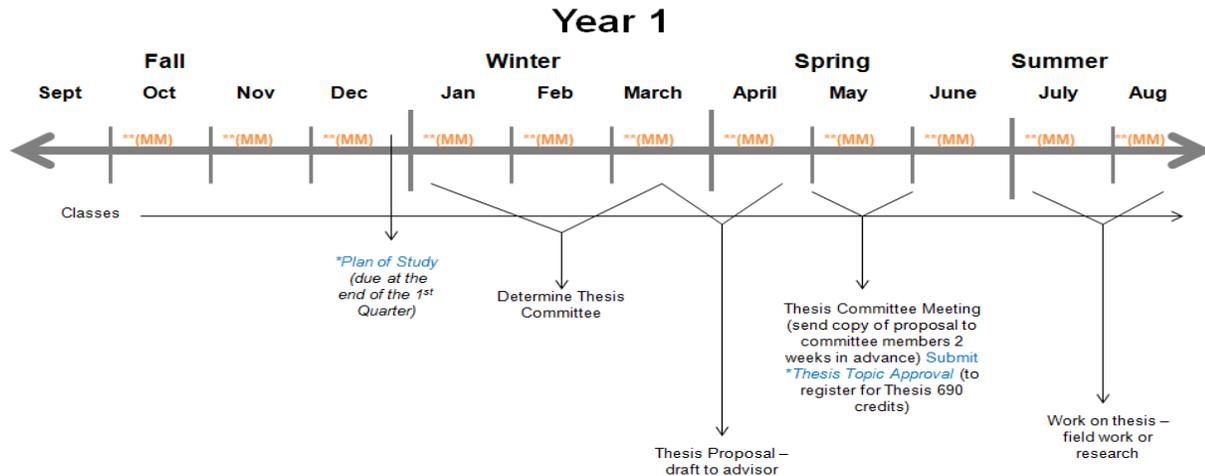
**Nick Zaferatos** -- community and sustainable development, environmental planning, EU policy, Native American political development

## Master of Science – Environmental Science Program Requirement Checklist

	<a href="#"><u>*Plan of Study</u></a>	Complete during first quarter. Submit Amendment to Plan of Study every time coursework changes. These are now done in DEGREEWORKS
	Form Thesis Committee	All members of thesis committees shall be designated or approved as graduate faculty. For a thesis committee, two members (including the committee chair) must be tenured or tenure-track graduate faculty in the student's academic department.
	Submit Research Proposal	Develop in consultation with faculty advisor and submit to thesis committee
	<a href="#"><u>*Thesis Topic Approval Form</u></a>	Prior to 690 Thesis Registration - Approved by all committee members, Grad Program Advisor, Department Chair and Graduate Dean
	Apply for College of the Environment research funds (Optional)	Mid-November / Mid-April
	Apply for RSP research funds (Optional)	Apply in each quarter for funding in summer/next year
	<a href="#"><u>Apply for Ross Travel Funds (Optional)</u></a>	Application Dates: 1 Oct, 15 Nov, 15 Mar, and 15 May
	*Register for Thesis Credits (Need overrides)	After satisfactory completion of 12 credits on Plan of Study, completion of prerequisites <u>and</u> approval of Thesis Topic by the Graduate School
	Thesis Drafts (Usually 3-4 draft versions) <a href="#"><u>Thesis Manuscript Format</u></a>	First draft to faculty adviser at least one quarter prior to quarter of graduation—make revisions as necessary. Entire committee should have thesis to read at least two weeks before oral defense is scheduled
	<a href="#"><u>*Masters Degree Application</u></a>	Due by end of quarter prior to your graduation
	<a href="#"><u>*Masters Degree Oral Defense Schedule</u></a>	Submit to Graduate School no later than 2-weeks prior to your defense date. You will need to know your date/location for your public defense and oral defense schedule to complete.
	<a href="#"><u>*Degree Recommendation - Thesis Option</u></a>	The approved recommendation must be received by the Graduate School no later than Friday one week before the beginning of finals week.

Note: All graduate students must be registered for at least 2 credits ESCI690 or ESCI699 continuous enrollment in the quarter of graduation or in the quarter immediately prior to graduation (not including summer quarter)

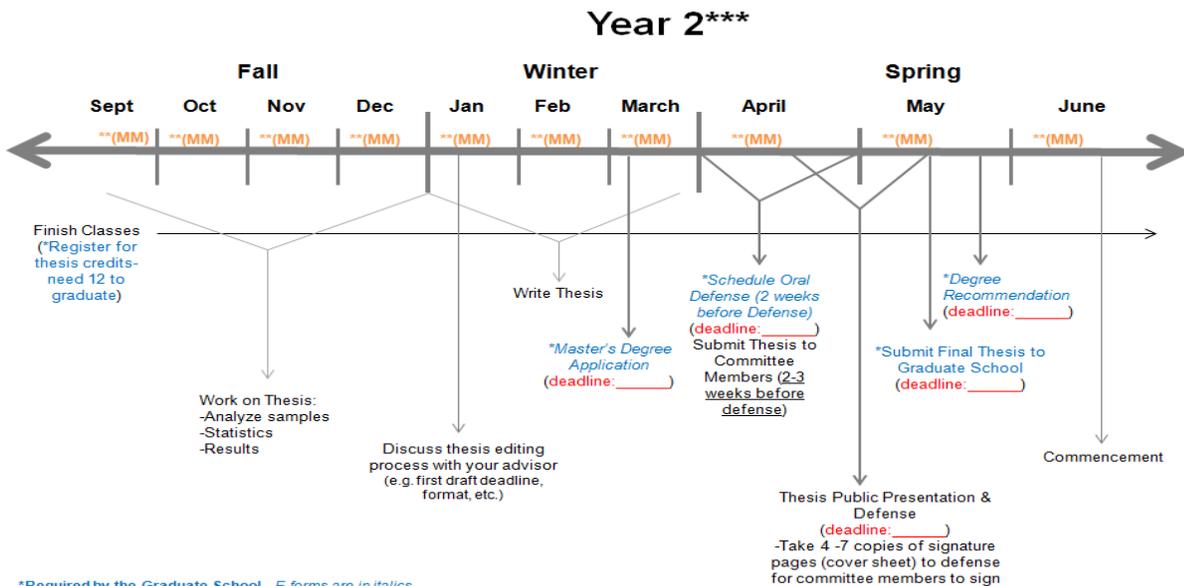
# Ideal Timeline (Assumes 2 Year Degree Completion)



\*Required by the Graduate School. E-forms are in italics

\*\**(MM)* It is suggested that graduate students meet monthly (MM) with their advisors for continuous communication

Many of the requirements listed above (Year 1) are suggested timeframes, with flexibility in the due dates.



\*Required by the Graduate School. E-forms are in italics

\*\**(MM)* It is suggested that graduate students meet monthly (MM) with their advisors for continuous communication

\*\*\*If you plan on graduating in the Summer, Fall, or Winter Quarter, use the timeline as a template and add the correct dates into the deadlines above. Deadlines are published on the graduate school website: <http://www.wvu.edu/gradschool/graduation.shtml>. For all graduate students: the last two quarters are the most important in terms of meeting deadlines and completing e-sign forms.

### ESCI Graduate Program Points of Contact

Position	Contact	Assists with:
<b>Graduate Program Coordinator</b>	<b>Ed Weber</b> 360-650-3646, ES 545B Ed.Weber@wwu.edu	Questions about environmental science program specifics, required forms, timelines, deadlines, TA assignments, room requests, payroll, stipends, tuition waivers, office space, registration and course overrides, thesis copying and binding, etc.
<b>Department Manager</b>	<b>Rose Kawczynski</b> 360-650-2844, ES 522 Rose.Kawczynski@wwu.edu	Making travel arrangements (before you travel), questions about grant spending.
<b>Scientific Lab Technician</b>	<b>Scott Wilkinson</b> <a href="mailto:scott.wilkinson@wwu.edu">scott.wilkinson@wwu.edu</a> 360-650-3667, ES 422	Questions about laboratory preparation and availability, research equipment and supplies, and TA needs
<b>Graduate Program Adviser</b>	<b>David Shull</b> <a href="mailto:david.shull@wwu.edu">david.shull@wwu.edu</a> 360-650-3690, ES 445	Approving and signing most everything you do toward completion of the degree