



**School of the Environment  
Washington State University**

## **Graduate Student Handbook**

AY 2019-2020

# **Graduate Student Handbook**

## **School of the Environment Washington State University**

Welcome to the School of the Environment (SoE) at Washington State University (WSU)! The SoE is jointly administered by the WSU College of Arts and Sciences and the College of Agriculture, Human, and Natural Resource Sciences. SoE is an academic unit with faculty, students and staff at multiple campuses and research centers across the WSU system.

This Graduate Handbook describes the SoE policies and procedures for all graduate programs in the School, and provides you with essential information as you navigate your graduate degree in SoE. It contains information specific to graduate studies within the School and general information of interest to all WSU graduate students. Although we regularly update the handbook, it is not meant to be all-inclusive; more detailed information may be accessed via the numerous links to the SoE graduate coordinators and resources at each campus for details specific to each location and degree program.

An important part of the SoE mission is to provide world-class graduate education in earth sciences, wildlife ecology, natural resource sciences, forestry and environmental sciences. Graduate students are centrally and crucially important to the SoE, in research, teaching, and maintaining a vibrant academic community. We welcome your participation!

-Dr. Matthew Carroll

Associate Director  
Graduate Programs

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## **I. About the School of the Environment**

## Mission of the School

The School of the Environment supports the current and future mission of Washington State University as a major land-grant research institution. Our teaching, research, and outreach advances understanding of the Earth's complex and dynamic physical, structural, biogeochemical, ecological and biological systems, and effects of land use and climate change. We advance scientific and social innovation needed to conserve biological diversity and to promote productive and sustainable ecological and human communities.

Through our activities the SOE aims to:

- Generate **fundamental knowledge** about the Earth, environmental and ecological processes, natural resources, and human-environment interactions.
- Develop **solutions** to state, national, and global environmental problems.
- Provide **cutting-edge training** to the next generation of research scientists, environmental and natural resource managers, environmental leaders, policy makers, and global citizens.
- Facilitate the **integrated research and education** necessary to support the Land Grant mission **to achieve a sustainable future**.
- Promote the **long-term conservation and enhancement of biological diversity and natural resources** in an ecologically sustainable manner.

## Core Areas of Research, Education, and Outreach

The School of the Environment has identified four key areas of Earth, ecological, and environmental science that mesh with core scholarship in the School to best address global environmental challenges. These also define flexible thematic areas for future growth and rapid response to newly emerging research issues.

Dynamic Earth: Living on an Active Planet

Sustaining Ecosystems: Thriving Lands and Wildlife

Water and Life: Resources, Habitats, Stewardship

People and the Land: Community Sustainability in an Era of Global Change

## II. SoE Graduate Programs

### Masters Degrees Offered

SOE currently offers five (5) M.S. degree programs: (Vancouver M.S. Environmental Science, Pullman M.S. Environmental Science, Tri-Cities M.S. Environmental Science), Natural Resource Sciences (Pullman), and Geology (Pullman). It is expected that the M.S. degree requirements be completed in two years (full-time enrollment, with assistantship), with options for extension as outlined in the Academic Regulation, Policies and Procedures section of the Handbook.

For all MS degrees, the graduate committee of each student shall have a minimum of three members from the WSU faculty. At least half of committee members shall be active Graduate Faculty members. One member of a master's committee must be a permanent, WSU tenured or tenure-track faculty member and a member of the SoE graduate faculty.

Individuals outside of WSU may serve as additional members of MS committees (not as chair or co-chair) with approval from the SOE Graduate Studies Committee and the Dean of the WSU Graduate School

### **M.S. Environmental Science**

The overall M.S. degree program in Environmental Science is designed to be interdisciplinary, with focal areas ranging from aquatic ecology to environmental policy. SoE offers a thesis and non-thesis option. For students in the M.S. Environmental Science thesis option, the goal is a publishable contribution to environmental science. Students in the non-thesis option produce a project rather than a thesis, and are required to complete a greater number of graded course credits.

**Table 1. Summary of academic requirements for the M.S. in Environmental Science at WSU Pullman and WSU Tri-Cities (For students submitting Program of Study after August 2019).**

<b>Degree Program</b>	<b>Academic Requirements</b>	<b>Committee Requirements</b>
<b>MS Environmental Science at WSU Pullman/Tri-Cities:</b>  <b>Thesis Option</b>  For details, visit: Pullman <a href="https://environment.wsu.edu/graduate-studies/masters/ms-">https://environment.wsu.edu/graduate-studies/masters/ms-</a>	<ul style="list-style-type: none"> <li>· 30 hours minimum of total credits, consisting of:</li> <li>- 21 hours minimum of graded course work.</li> <li>- 15 hours minimum of graded course work at the 500-level.</li> <li>- 6 hours maximum of non-graduate (300-400 level) graded course work.</li> <li>- 4 hours minimum of SOE 700, 2 of which must be taken in</li> </ul>	<ul style="list-style-type: none"> <li>• The graduate committee of each student shall have a minimum of three members. At least half of committee members shall be active Graduate Faculty members. One member of a master's committee must be a permanent, WSU tenured or tenure-track faculty member</li> </ul>

<p><a href="https://cas.graduate.environmental-science/">environmental-science/</a></p> <p>Tri-Cities  <a href="https://tricity.wsu.edu/cas/graduate/environmental-science/">https://tricity.wsu.edu/cas/graduate/environmental-science/</a></p>	<p>the semester of the final exam.</p> <ul style="list-style-type: none"> <li>• Courses taken for audit or courses graded Pass/Fail may not be used on the program of study.</li> <li>• Thesis.</li> <li>• Final oral exam - thesis defense.</li> </ul>	<p>and a member of the SoE graduate faculty.</p> <ul style="list-style-type: none"> <li>• Individuals outside of SOE or WSU may serve as additional members of MS committees (not as chair or co-chair) with approval from the SOE Graduate Studies Committee and the Dean of the WSU Graduate School</li> </ul>
<p><b>MS Environmental Science at WSU Pullman/Tri-Cities:</b></p> <p><b>Non-thesis Option</b></p> <p>For details, visit: Pullman  <a href="https://environment.wsu.edu/graduate-studies/masters/ms-environmental-science/">https://environment.wsu.edu/graduate-studies/masters/ms-environmental-science/</a></p> <p>Tri-Cities  <a href="https://tricity.wsu.edu/cas/graduate/environmental-science/">https://tricity.wsu.edu/cas/graduate/environmental-science/</a></p>	<ul style="list-style-type: none"> <li>• 30 hours minimum of total credits, consisting of: <ul style="list-style-type: none"> <li>- 26 hours minimum of graded course work.</li> <li>- 17 hours minimum of graded course work at the 500-level.</li> <li>- 9 hours maximum of non-graduate (300-400 level) graded course work.</li> <li>- 4 hours minimum of SOE 702, 2 of which must be taken in the semester of the final exam.</li> </ul> </li> <li>• Courses taken for audit or courses graded Pass/Fail may not be used on the program of study.</li> <li>• Final project.</li> <li>• Committee ballot meeting.</li> </ul>	<p>The graduate committee of each student shall have a minimum of three members. At least half of committee members shall be active Graduate Faculty members. One member of a master's committee must be a permanent, WSU tenured or tenure-track faculty member and a member of the SoE graduate faculty</p> <ul style="list-style-type: none"> <li>• Individuals outside of SOE or WSU may serve as additional members of MS committees (not as chair or co-chair) with approval from the SOE Graduate Studies Committee and the Dean of the WSU Graduate School</li> </ul>

**Table 2. Summary of academic requirements for the M.S. in Environmental Science at WSU Vancouver (For students submitting Program of Study after August 2019).**

Degree Program	Academic Requirements	Committee Requirements
<p><b>MS Environmental Science at WSU Vancouver:</b></p> <p><b>Thesis Option</b></p> <p>For details, visit:  <a href="https://cas.vancouver.wsu.edu/science-graduate-programs/environmental-science-ms">https://cas.vancouver.wsu.edu/science-graduate-programs/environmental-science-ms</a></p>	<ul style="list-style-type: none"> <li>• 30 hours minimum of total credits, consisting of: <ul style="list-style-type: none"> <li>➢ 21 hours minimum of graded course work, including: <ul style="list-style-type: none"> <li>○ 2 credits of SOE 592 or 597</li> <li>○ 3 credits of SOE 544, or other policy/society/management course</li> <li>○ 3 credits of statistics, math or other quantitative course work</li> <li>○ 13 credits of additional graded course work</li> <li>○ At least 8 credits of graded courses must be SOE pre-fix</li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• The graduate committee of each student shall have a minimum of three members from the WSU faculty. At least half of committee members shall be active Graduate Faculty members. One member of a master's committee must be a permanent, WSU tenured or tenure-track faculty member and a member of the SoE graduate faculty</li> </ul>

	<ul style="list-style-type: none"> <li>○ 15 hours minimum of graded course work at the 500-level</li> <li>○ 6 hours maximum of non-graduate (300-400 level) graded course work.</li> <li>➤ 9 hours minimum of non-graded course work, including: <ul style="list-style-type: none"> <li>○ 6 credits minimum of SOE 700, 2 of which must be taken in the semester of the final exam.</li> <li>○ 1 credit of SOE 501</li> <li>○ 2 credits of SOE 598</li> </ul> </li> <li>• Courses taken for audit or courses graded Pass/Fail may not be used on the program of study.</li> <li>• Thesis.</li> <li>• Final oral exam - thesis defense.</li> </ul>	<ul style="list-style-type: none"> <li>• Individuals outside of WSU may serve as additional members of MS committees (not as chair or co-chair) with approval from the SOE Graduate Studies Committee and the Dean of the WSU Graduate School</li> </ul>
<p><b>MS Environmental Science at WSU Vancouver:</b></p> <p><b>Non-thesis Option</b></p> <p>For details, visit: <a href="https://cas.vancouver.wsu.edu/science-graduate-programs/environmental-science-ms">https://cas.vancouver.wsu.edu/science-graduate-programs/environmental-science-ms</a></p>	<ul style="list-style-type: none"> <li>• 33 hours minimum of total credits, consisting of: <ul style="list-style-type: none"> <li>➤ 26 hours minimum of graded course work, including: <ul style="list-style-type: none"> <li>○ 2 credits of SOE 592 or 597</li> <li>○ 3 credits of SOE 544, or other policy/society/management course</li> <li>○ 3 credits of statistics or math courses</li> <li>○ 18 credits of additional graded course work</li> <li>○ At least 6 credits of graded courses must be SOE pre-fix</li> <li>○ 20 hours minimum of graded course work at the 500-level</li> <li>○ 6 hours maximum of non-graduate (300-400 level) graded course work.</li> </ul> </li> <li>➤ 7 hours minimum of non-graded course work, including: <ul style="list-style-type: none"> <li>○ 6 credits minimum of SOE 702, 2 of which must be taken in the semester of the final exam.</li> <li>○ 1 credit of SOE 501</li> <li>○ 2 credits of SOE 598</li> </ul> </li> </ul> </li> <li>• Courses taken for audit or courses graded Pass/Fail may not be used on the program of study</li> <li>• Final project</li> <li>• Committee balloting meeting</li> </ul>	<ul style="list-style-type: none"> <li>• The graduate committee of each student shall have a minimum of three members from the WSU faculty. At least half of committee members shall be active Graduate Faculty members. One member of a master's committee must be a permanent, WSU tenured or tenure-track faculty member and a member of the SoE graduate faculty</li> <li>• Individuals outside of WSU may serve as additional members of MS committees (not as chair or co-chair) with approval from the SOE Graduate Studies Committee and the Dean of the WSU Graduate School</li> </ul>

Specific courses to be included on a student's degree plan (“Program of Study”) are determined as a joint effort between the student, his/her major professor and the other members of the advisory committee to meet the particular needs of the student. All incoming students who lack prior Graduate School experience are strongly encouraged to take one credit hour of a Graduate Skills course, SOE 501 (this is required in the Vancouver MS program). This course provides an

introduction to graduate study at WSU, the scientific method, and research proposal and results presentation. All students are also strongly encouraged to take one or more credit hours of seminar courses (e.g., SOE 593). The student's advisory committee and the department chair must approve the Program of Study before it is submitted to the Graduate School for approval.

Courses taken to remove undergraduate deficiencies cannot be taken for a Pass/Fail grade. Any course included in the advanced degree program in which a grade of "C-" or below is earned must be repeated but not on a Pass/Fail basis.

A final oral exam is required to test the candidate's knowledge of Environmental Science with emphasis on thesis research.

### **M.S. Natural Resource Sciences**

The M.S. degree program in Natural Resource Sciences focuses on understanding ecosystems and natural resources (i.e., plants and animals) and their diverse ecological and/or social values. The goal of the program is a thesis that is a publishable contribution to the field of Natural Resource Sciences.

Specializations are offered in areas such as:

- Wildlife ecology, conservation and biodiversity
- Forest ecology
- Spatial aspects of natural resources
- Aquatic resources

**Table 3. Summary of academic requirements for the M.S. in Natural Resource Sciences (For students submitting Program of Study after August 2019).**

<b>Degree Program</b>	<b>Campus</b>	<b>Academic Requirements</b>	<b>Committee Requirements</b>
<b>MS Natural Resource Sciences</b>  For details, visit: <a href="https://environment.wsu.edu/graduate-studies/masters/ms-natural-resource-science/">https://environment.wsu.edu/graduate-studies/masters/ms-natural-resource-science/</a>	Pullman	<ul style="list-style-type: none"> <li>• 30 hours minimum of total credits, consisting of:               <ul style="list-style-type: none"> <li>- 21 hours minimum of graded course work.</li> <li>- 15 hours minimum of graded course work at the 500-level.</li> <li>- 6 hours maximum of non-graduate (300-400 level) graded course work.</li> <li>- 4 hours minimum of SOE 700, 2 of which must be taken in the semester of the final exam.</li> </ul> </li> <li>• Courses taken for audit or courses graded Pass/Fail may not be used on the program of study.</li> <li>• Thesis.</li> </ul>	<ul style="list-style-type: none"> <li>• The graduate committee of each student shall have a minimum of three members. At least half of committee members shall be active Graduate Faculty members. One member of a master's committee must be a permanent, WSU tenured or tenure-track faculty member and a</li> </ul>



		<ul style="list-style-type: none"> <li>Final oral exam - thesis defense.</li> </ul>	<p>member of the SoE graduate faculty.</p> <ul style="list-style-type: none"> <li>Individuals outside of SOE or WSU may serve as additional members of MS committees (not as chair or co-chair) with approval from the SOE Graduate Studies Committee and the Dean of the WSU Graduate School</li> </ul>
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Specific courses to be included on a student's degree plan ("Program of Study") are determined as a joint effort between the student, his/her major professor and the other members of the advisory committee to meet the particular needs of the student. All incoming students who lack prior Graduate School experience are strongly encouraged to take one credit hour of a Graduate Skills course, SOE 501. This course provides an introduction to graduate study at WSU, the scientific method, and research proposal and results presentation. All students are also strongly encouraged to take one or more credit hours of seminar courses (e.g., SOE 593). The student's advisory committee and the department chair must approve the Program of Study before it is submitted to the Graduate School for approval.

Courses taken to remove undergraduate deficiencies cannot be taken for a Pass/Fail grade. Any course included in the advanced degree program in which a grade of "C-" or below is earned must be repeated but not on a Pass/Fail basis.

A final oral exam is required to test the candidate's knowledge of Natural Resource Sciences with emphasis on thesis research.

### **M.S. Geology**

The M.S. degree program in Geology focuses on fundamental questions in Earth Sciences ranging from how Earth formed, how it has evolved through time, and how it operates and is changing today. Specializations are offered in:

- Sedimentology-Stratigraphy
- Structural Geology - Tectonics
- Mineralogy-Petrology-Geochemistry
- Hydrogeology-biogeochemistry
- Geophysics-Geodynamics

SoE offers a thesis and non-thesis option. For students in the M.S. Geology thesis option, the goal is a publishable contribution to Earth science. Students in the non-thesis option produce a project rather than a thesis, and are required to complete more graded course credits.

**Table 4. Summary of academic requirements for the M.S. in Geology (For students submitting Program of Study after August 2019).**

Degree Program	Academic Requirements	Committee Requirements
<p><b>MS Geology:</b> <b>Thesis Option</b></p> <p>For details, visit: <a href="https://environment.wsu.edu/graduate-studies/masters/ms-geology/">https://environment.wsu.edu/graduate-studies/masters/ms-geology/</a></p>	<ul style="list-style-type: none"> <li>· 30 hours minimum of total credits, consisting of:               <ul style="list-style-type: none"> <li>- 21 hours minimum of graded course work.</li> <li>- 15 hours minimum of graded course work at the 500-level.</li> <li>- 6 hours maximum of non-graduate (300-400 level) graded course work.</li> <li>- 4 hours minimum of SOE 700, 2 of which must be taken in the semester of the final exam.</li> </ul> </li> <li>· Courses taken for audit or courses graded Pass/Fail may not be used on the program of study.</li> <li>• Thesis.</li> <li>• Final oral exam - thesis defense.</li> </ul>	<p>The graduate committee of each student shall have a minimum of three members. At least half of committee members shall be active Graduate Faculty members. At least two members of the doctoral committee must be permanent WSU tenured or tenure-track faculty as well as members of SoE Graduate Faculty.</p> <ul style="list-style-type: none"> <li>• Individuals outside of SOE or WSU may serve as additional members of MS committees (not as chair or co-chair) with approval from the SOE Graduate Studies Committee and the Dean of the WSU Graduate School</li> </ul>
<p><b>MS Geology:</b> <b>Non-thesis Option</b></p> <p>For details, visit: <a href="https://environment.wsu.edu/graduate-studies/masters/ms-geology/">https://environment.wsu.edu/graduate-studies/masters/ms-geology/</a></p>	<ul style="list-style-type: none"> <li>· 30 hours minimum of total credits, consisting of:               <ul style="list-style-type: none"> <li>- 26 hours minimum of graded course work.</li> <li>- 17 hours minimum of graded course work at the 500-level.</li> <li>- 9 hours maximum of non-graduate (300-400 level) graded course work.</li> <li>- 4 hours minimum of SOE 702, 2 of which must be taken in the semester of the final exam.</li> </ul> </li> <li>· Courses taken for audit or courses graded Pass/Fail may not be used on the program of study.</li> <li>· Final project.</li> <li>• Committee ballot meeting.</li> </ul>	<p>The graduate committee of each student shall have a minimum of three members. At least half of committee members shall be active Graduate Faculty members. At least two members of the doctoral committee must be permanent WSU tenured or tenure-track faculty as well as members of SoE Graduate Faculty.</p> <ul style="list-style-type: none"> <li>• Individuals outside of SOE or WSU may serve as</li> </ul>

		additional members of MS committees (not as chair or co-chair) with approval from the SOE Graduate Studies Committee and the Dean of the WSU Graduate School
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Specific courses to be included on a student's degree plan ("Program of Study") are determined as a joint effort between the student, his/her major professor and the other members of the advisory committee to meet the particular needs of the student. All incoming students who lack prior Graduate School experience are strongly encouraged to take one credit hour of a Graduate Skills course, SOE 501. This course provides an introduction to graduate study at WSU, the scientific method, and research proposal and results presentation. All students are also strongly encouraged to take one or more credit hours of seminar courses (e.g., SOE 593). The student's advisory committee and the department chair must approve the Program of Study before it is submitted to the Graduate School for approval.

Courses taken to remove undergraduate deficiencies cannot be taken for a Pass/Fail grade. Any course included in the advanced degree program in which a grade of "C-" or below is earned must be repeated but not on a Pass/Fail basis.

A final oral exam is required to test the candidate's knowledge of Geology with emphasis on thesis research.

**Generalized timeline for Masters degrees**

The following is a timeline offered as a guide to the timely completion of the masters degrees described above:

**Year 1**

Fall: Coursework, Assemble thesis committee

Spring: Committee meeting, File program of study, Continue coursework, Begin research

Summer: Continue research

**Year 2**

Fall: Complete coursework, Complete data analysis

Spring: Write and defend thesis, Graduate

## Doctoral Degrees Offered

### **Ph.D. in Environmental & Natural Resource Sciences**

Ph.D. research in Environmental & Natural Resource Sciences spans a range of the biological, physical and social sciences that focus on understanding and managing the environment, including diverse aquatic and terrestrial ecosystems and natural resources such as plants and animals. Specializations are offered in areas such as :

- Environmental policy & management
- Aquatic ecology
- Wildlife ecology, conservation & biodiversity
- Forest ecology
- Spatial aspects of natural resources

The Ph.D. dissertation should be a significant contribution to environmental and natural resource sciences, worthy of publication in refereed international journals.

The graduate committee of each Ph.D. student shall have a minimum of three members. At least half of committee members shall be active WSU Graduate Faculty members. At least two members of the doctoral committee must be permanent WSU tenured or tenure- track faculty as well as members of SoE Graduate Faculty.

**Table 5. Summary of academic requirements for the Ph.D. in Environmental and Natural Resource Sciences (For students submitting Program of Study after August 2019).**

Degree Program	Campus	Academic Requirements	Committee Requirements
<b>PhD Environmental &amp; Natural Resource Sciences</b>  For details, please visit: <a href="https://environment.wsu.edu/graduate-studies/phd/phd-environmental-natural-resource-sciences/">https://environment.wsu.edu/graduate-studies/phd/phd-environmental-natural-resource-sciences/</a>	Pullman Vancouver Tri-Cities	<ul style="list-style-type: none"> <li>• 72 hours minimum of total credits, consisting of:</li> <li>- 15 hours minimum of graded course work at the 500-level if student has an M.S. OR 17 hours minimum of graded 500-level coursework if student has only a B.S.</li> <li>- 9 hours maximum of non-graduate (300-400 level) graded course work.</li> <li>- 20 hours minimum of SOE 800, and 1 credit during each semester enrolled (except summer).</li> <li>• Courses taken for audit or courses graded Pass/Fail may not be used on the program of study.</li> <li>• Preliminary exam.</li> </ul>	The graduate committee of each student shall have a minimum of three members. At least half of committee members shall be active Graduate Faculty members. At least two members of the doctoral committee must be permanent WSU tenured or

		<ul style="list-style-type: none"> <li>• Dissertation.</li> <li>• Final oral exam - dissertation defense.</li> </ul>	<p>tenure-track faculty as well as members of SoE Graduate Faculty.</p> <ul style="list-style-type: none"> <li>• Individuals outside of WSU may serve as additional members of PhD committees (not as chair or co-chair) with approval from the SOE Graduate Studies Committee and the Dean of the WSU Graduate School</li> </ul>
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***Program Committee and Advisor***

Students are required to find an advisor from the SOE graduate faculty who is willing to supervise the student's dissertation research before being admitted the the program. The advisor will recommend a Dissertation Committee. The committee will consist of at least three members that must be Graduate Faculty. At the doctoral level, the committee also has the responsibility for the Ph.D. preliminary examination and the qualifying examination for the Doctor of Philosophy degree.

***Program of Study***

Specific courses to be included on a student's degree plan (“Program of Study”) are determined as a joint effort between the student, his/her major professor and the other members of the advisory committee to meet the particular needs of the student. All incoming students who lack prior Graduate School experience are strongly encouraged to take one credit hour of a Graduate Skills course, SOE 501. This course provides an introduction to graduate study at WSU, the scientific method, and research proposal and results presentation. All students are also strongly encouraged to take one or more credit hours of seminar courses (e.g., SOE 593). The student's advisory committee and the department chair must approve the Program of Study before it is submitted to the Graduate School for approval.

Courses taken to remove undergraduate deficiencies cannot be taken for a Pass/Fail grade. Any course included in the advanced degree program in which a grade of "C-" or below is earned must be repeated but not on a Pass/Fail basis.

***Preliminary Examination***

Each student is required to pass a preliminary examination in order to become a candidate for the Ph.D. degree. This examination will be taken after most of the required course work has been completed, as determined by the dissertation committee, and upon submission of a dissertation research proposal. It will consist of a written exam followed by an oral defense the format of which will be determined by the individual's committee. Both will focus on the student's major area of competency, courses taken, and the subject matter of the proposed research. If the student fails to pass the examination after the allowed number of attempts, SoE will recommend to the Graduate School that the student be disenrolled from the program.

The preliminary exam will examine competencies in these five areas:

1. Advanced knowledge of ecosystems, including both biophysical structure and function, and roles of humans.
2. Advanced knowledge in research methods.
3. Advanced knowledge concerning the role that ethics plays in environmental and natural resource issues and in related scientific endeavors
4. Advanced interdisciplinary cognizance/appreciation.
5. A specialized subject area to be defined by the student and the student's Supervisory Committee.

### ***Dissertation and Final Examination***

The final examination will be mainly a defense of the dissertation. All students are required to present a seminar to the faculty and public on their dissertation research.

Students can choose whether the final copy of the thesis is provided to the Graduate School in paper format or digital format. The candidate for degree will continue to submit two paper copies of the title page, two paper copies of the abstract, and two original signature pages--one on 100% bond. Signatures should be in blue or black ink.

If the candidate selects to utilize the paper format, two unbound copies of the final dissertation must be provided to the Graduate School within five working days of passing your scheduled final examination:

- One copy on 100% cotton rag paper with original signature page
- One copy with original signature page (it is not necessary to have this second copy on 100% cotton paper)

Graduate students should be aware of the Departmental rules and requirements regarding distribution of thesis drafts. Because a student only has five working days after defending their thesis to turn in the final version to the Graduate School, substantially all changes must be addressed prior to defending their thesis in the final exam. Consequently, **your committee members need to have read your thesis prior to scheduling a thesis defense date.** This means committee member should receive copies of your thesis at least 14 days before scheduling the final exam. Depending on your advisor and your writing ability, you should generally allow for three to four weeks prior to this for addressing the rough draft comments.

### Ph.D. in Geology

Ph.D. research in Geology focuses on fundamental questions in the Earth Sciences ranging from how Earth formed, how it has evolved through time, and how it operates and is changing today. Specializations are offered in:

- Sedimentology-Stratigraphy
- Structural Geology - Tectonics
- Mineralogy-Petrology-Geochemistry
- Hydrogeology-biogeochemistry
- Geophysics-Geodynamics

The Ph.D. dissertation should be a significant contribution to the science of geology, worthy of publication in refereed international journals.

**Table 6. Summary of academic requirements for the Ph.D. in Geology (For students submitting Program of Study after August 2019).**

Degree Program	Campus	Academic Requirements	Committee Requirements
<b>PhD Geology</b>  For details, please visit: <a href="https://environment.wsu.edu/graduate-studies/phd/phd-geology/">https://environment.wsu.edu/graduate-studies/phd/phd-geology/</a>	Pullman	<ul style="list-style-type: none"> <li>• 72 hours minimum of total credits, consisting of:               <ul style="list-style-type: none"> <li>- 15 hours minimum of graded course work at the 500-level level if student has an M.S. OR 17 hours minimum of graded 500-level coursework if student has only a B.S.</li> <li>- 9 hours maximum of non-graduate (300-400 level) graded course work.</li> <li>- 20 hours minimum of SOE 800, and 1 credit during each semester enrolled (except summer).</li> </ul> </li> <li>• Courses taken for audit or courses graded Pass/Fail may not be used on the program of study.</li> </ul>	<ul style="list-style-type: none"> <li>• The graduate committee of each student shall have a minimum of three members. At least half of committee members shall be active Graduate Faculty members. At least two members of the doctoral committee must be permanent WSU tenured or tenure-</li> </ul>

		<ul style="list-style-type: none"> <li>• Preliminary exam.</li> <li>• Dissertation.</li> <li>• Final oral exam - dissertation defense.</li> </ul>	<p>track faculty as well as members of SoE Graduate Faculty.</p> <ul style="list-style-type: none"> <li>• Individuals outside of WSU may serve as members of PhD committees (not as chair or co-chair) with approval from the SOE Graduate Studies Committee and the Dean of the WSU Graduate School</li> </ul>
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### ***Program Committee and Advisor***

Students are required to find an advisor from the SOE graduate faculty who is willing to supervise the student's dissertation research before being admitted to the program. The advisor will recommend a Dissertation Committee. The committee will consist of at least three members that must be Graduate Faculty. At the doctoral level, the committee also has the responsibility for the Ph.D. preliminary examination and the qualifying examination for the Doctor of Philosophy degree.

### ***Program of Study***

Specific courses to be included on a student's degree plan ("Program of Study") are determined as a joint effort between the student, his/her major professor and the other members of the advisory committee to meet the particular needs of the student. All incoming students who lack prior Graduate School experience are strongly encouraged to take one credit hour of a Graduate Skills course, SOE 501. This course provides an introduction to graduate study at WSU, the scientific method, and research proposal and results presentation. All students are also strongly encouraged to take one or more credit hours of seminar courses (SOE 598). The student's advisory committee and the department chair must approve the Program of Study before it is submitted to the Graduate School for approval.

Courses taken to remove undergraduate deficiencies cannot be taken for a Pass/Fail grade. Any course included in the advanced degree program in which a grade of "C-" or below is earned must be repeated but not on a Pass/Fail basis.

### ***Preliminary Examination***

Each student is required to pass a preliminary examination in order to become a candidate for the Ph.D. degree. This examination will be taken after most of the required course work has been completed, as determined by the thesis committee, and upon submission of a dissertation research proposal. It will consist of written



and oral parts which will focus on the student's major area of study, courses taken, and the subject matter of the proposed research.

### ***Dissertation and Final Examination***

The final examination will be mainly a defense of the dissertation. All students are required to present a seminar to the faculty and public on their dissertation research.

Students can choose whether the final copy of the thesis is provided to the Graduate School in paper format or digital format. The candidate for degree will continue to submit two paper copies of the title page, two paper copies of the abstract, and two original signature pages--one on 100% bond. Signatures should be in black ink.

If the candidate selects to use paper format, two unbound copies of the final dissertation must be provided to the Graduate School within five working days of passing your scheduled final examination:

- One copy on 100% cotton rag paper with original signature page
- One copy with original signature page (it is not necessary to have this second copy on 100% cotton paper)

Graduate students should be aware of the Departmental rules and requirements regarding distribution of thesis drafts. Because a student only has five working days after defending their thesis to turn in the final version to the Graduate School, substantially all changes must be addressed before defending their thesis in the final exam. Consequently, **your committee members need to have read your thesis prior to scheduling a thesis defense date.** This means committee member should receive copies of your thesis at least 14 days before scheduling the final exam. Depending on your advisor and your writing ability, you should generally allow for three to four weeks prior to this for addressing the rough draft comments.

### **Generalized timeline for Ph.D. programs**

The following is a timeline offered as a guide to the timely completion of the Ph.D. degrees described above. Note that the total duration of any individual's doctoral program will vary depending on prior degrees earned, research topic and methodological approaches, etc. The guide below would be typical of a Ph.D. student who entered the program having already earned a M.S. in a related field.

#### **Year 1**

Fall: Coursework, Assemble dissertation committee  
Spring: Committee meeting, Continue coursework, Begin research, File Program of Study  
Summer: Continue research

### **Year 2**

Fall: Continue coursework, Continue research, Committee meeting  
Spring: Finish coursework, Prepare for and complete preliminary examination  
Summer: Continue research

### **Year 3**

Fall: Continue research, Committee meeting, Begin data analysis  
Spring: Continue research, Continue data analysis  
Summer: Continue research, Continue data analysis

### **Year 4**

Fall: Complete data analysis, Begin writing  
Spring: Complete writing, Defend dissertation

## **III. Information for Graduate Students in SoE**

### **New student information**

#### **Residency**

In-state tuition is considerably less expensive for Washington residents than for out-of-state students, so students must establish residency immediately upon arrival to campus. Note that tuition waivers for RA and TA appointments starting in the second year of study require that students are Washington State residents. Beginning one year prior to the semester during which you plan to apply for residency, you need to “establish ties” in Washington State. Within two weeks of arriving on campus, be sure to complete the applicable items in this list. After you have lived in Washington for one year, submit a [residency questionnaire](#) to the Graduate School, along with ALL of the following items:

#### **Checklist**

- Any home purchase agreements, lease agreements, rent receipts or cancelled checks, or letters from your landlord that verify physical residence in Washington for 12 consecutive months prior to the first day of the semester in which you submit the residency application.
- A copy of your Washington State driver's license. You must obtain a Washington State driver's license at least one year prior to the semester

in which you apply. If you do not drive, provide a copy of your Washington State identification card.

Proof of any permanent full-time or part-time employment in Washington during the year prior to the semester in which you apply.

- A copy of your Washington State vehicle registration issued one year prior to the semester in which you apply. (A copy of your title will not suffice). Failure to provide this will likely result in a denial of Washington residency for tuition purposes.
  - A copy of Washington voter registration issued one year prior to the semester in which you apply.
  - Proof of having established a bank account in Washington.
- Any other documents you have to show that you have established ties in Washington for the one year prior to the semester in which you apply (clubs, organizations, etc.).

## **Financing your education**

Financial support for graduate students is most commonly available in the form of either a graduate teaching assistantship or research assistantship. Graduate assistantships normally include tuition waivers and benefits.

### **Teaching Assistantships**

If you have been awarded a TA position, you will have already received a letter stating the terms of that appointment. Teaching assistantships are state-supported half-time, nine-month positions available to students with strong academic records. Graduate students on teaching assistantships work on average 20 hours per week teaching laboratory sections, grading homework and exams, or answering questions during office hours. Teaching assistants may aid in courses that are in their sub-discipline areas.

### **Research Assistantships**

Stipends are also available for graduate research assistantships (RAs) in which the work conducted is for an externally funded research project. If you have been awarded an RA position, you will have already received a letter with information regarding the terms of that appointment and listing the faculty member who has agreed to provide funding. Graduate research assistantships are half-time appointments that may, but not always, cover the summer months in addition to the academic year. In many cases, the results of the work are applied to the student's thesis.

### **Hourly Wage Positions**

The selection process for awarding graduate teaching and research assistantships is highly competitive. For students who are not awarded research

or teaching assistantships, hourly wage positions may be available to provide partial financial support through the department and the college. Work closely with the graduate coordinator and your academic advisor to keep abreast of funding opportunities. For assistance finding employment at Washington State University, you can search for jobs through the online job search site for student employment: <https://ascc.wsu.edu/career-services/student-employment/>

### **Scholarships/Fellowships**

The Graduate School and other academic departments offer a variety of funding opportunities for new and current students. Information is available at: <https://gradschool.wsu.edu/jobs/>

For highly qualified applicants, graduate fellowships are available from the National Science Foundation (NSF), the Department of Defense, the Environmental Protection Agency, and other state and federal agencies, non-profits, and private foundations. Such fellowships are highly competitive, but provide graduate students with a high degree of freedom to pursue creative research while in graduate school. Interested students should work with their faculty advisors on these applications.

### **SoE Grants and Scholarships**

Each academic year, a number of internal grants and scholarships are available to SoE graduate students. Information about the application process will be made available late in the Fall semester; the due date for applications is January 31<sup>st</sup> annually.

### **For International students**

International graduate students often have special concerns that may affect their course of study, finances, and length of stay in the United States. The Office of International Programs is a valuable resource, and the staff can answer questions of concern. The Office of International Programs (IP) is located in Bryan Hall Room 108; the phone number is 335-4508. The IP webpage is located here: <https://ip.wsu.edu/>

If you are not a U.S. citizen, but hold permanent resident immigration status, temporary resident status, or refugee status, submit a copy of both sides of your Resident Alien Card, Form I-94, Temporary Resident card or other verification of your status with Immigration and Naturalization Service (INS).

For all international student issues such as tuition rates, residency

requirements, employment, social security numbers and taxes, and learning English please contact the Office of International Programs directly.

## **Cooperative courses at the University of Idaho (UI)**

WSU and the University of Idaho operate a cooperative agreement by which WSU Pullman students can register at UI and take approved courses offered by UI at no extra charge. These are typically classroom courses taught on the nearby UI campus in Moscow, ID. A list of UI courses available to WSU Pullman students is available at: [www.uidaho.edu/registrar/registration/coop](http://www.uidaho.edu/registrar/registration/coop)

## **Campus Resources**

### **WSU System Wide**

#### **Office of Equal Opportunity -**

Office for ADA, Title IX, and EEO/AA Compliance; where to file a complaint or file a report on discrimination, accessibility compliance, sex & gender based harassment & discrimination, and sex & gender based violence. [oeo.wsu.edu](http://oeo.wsu.edu), (509) 335-8288

#### **WSU Ombudsman -**

“An effective, informal, and neutral channel for students, staff, and faculty to voice university-related concerns”

[ombudsman.wsu.edu](http://ombudsman.wsu.edu), (509)335-1195, [ombudsman@wsu.edu](mailto:ombudsman@wsu.edu)

### **Pullman**

#### **Dean of Students -**

[deanofstudents.wsu.edu](http://deanofstudents.wsu.edu), French Administration 122, (509)335-5757, [deanofstudents@wsu.edu](mailto:deanofstudents@wsu.edu)

#### **Graduate and Professional Student Association -**

[www.gpsa.wsu.edu](http://www.gpsa.wsu.edu)

#### **Women’s Center -**

[www.women.wsu.edu](http://www.women.wsu.edu), Wilson-Short Hall, Ground Floor, (509)335-6849, [womens.center@wsu.edu](mailto:womens.center@wsu.edu)

#### **Gender Identity/Expression and Sexual Orientation Resource Center -**

[www.thecenter.wsu.edu/home/](http://www.thecenter.wsu.edu/home/), CUB 401, (509)335-8841, [giesorc@wsu.edu](mailto:giesorc@wsu.edu)

#### **Multicultural Student Services -**

[www.mss.wsu.edu](http://www.mss.wsu.edu), CUB 409, (509)335-7852

#### **Veteran’s Affairs -**

[va.wsu.edu](http://va.wsu.edu), Holland 120BA, (509)335-1234, [veterans@wsu.edu](mailto:veterans@wsu.edu)

**Access Center/Disability Resource Center -**

www.drc.wsu.edu, Washington Building, 2<sup>nd</sup> Floor, (509)335-3417,  
access.center@wsu.edu

**Cougar Health Services -**

cougarhealth.wsu.edu, Washington Building, (509)335-3535 (also a 24 hr  
telephone nurse line), cougarhealth.wsu.edu

**Cougar Safe Ride -**

cougarsaferides.wsu.edu, (WSU)267-SAFE, cougar.safe.rides@wsu.edu

**Food Pantries -**

Rosario's Place (food pantry, children's clothes, & diapers): Wilson-Short  
Hall

Room 8

TRIO Food Pantry: Lighty 260

Cougs Feeding Cougs: studentaffairs.wsu.edu/initiatives/cougs-feeding-  
cougs/

**Campus Police -**

police.wsu.edu, (509)335-8548 (non-emergency; for emergencies call 911)

**Writing Center -**

https://writingprogram.wsu.edu/graduate-writing-center/, CUE414  
gpwc@wsu.edu

**Center for Interdisciplinary Statistical Education & Research -**

ciser.wsu.edu, Abelson Suite 227, Main Office 221, (509)335-1201,  
ciser.info@wsu.edu

**Vancouver**

**Graduate Student Association -**

Facebook - WSUVGrads,

Listserv - https://lists.wsu.edu/mailman/listinfo/casgradstudents (link to  
subscribe)

Vancouver Natural Sciences Grad Listserv

http://lists.wsu.edu/mailman/listinfo/science-gradstudents

**Health Services -**

[https://studentaffairs.vancouver.wsu.edu/student-wellness-  
center/health-services](https://studentaffairs.vancouver.wsu.edu/student-wellness-center/health-services)

(360)546-9238, 24 hour nurse advice: (509)335-3575, van.health@wsu.edu

**Counseling Services -**

[https://studentaffairs.vancouver.wsu.edu/student-wellness-  
center/counseling-services](https://studentaffairs.vancouver.wsu.edu/student-wellness-center/counseling-services)

Classroom Building, Room 60, (360)546-9238, van.counseling@wsu.edu

**Access Center -**

[https://studentaffairs.vancouver.wsu.edu/student-wellness-  
center/access-center](https://studentaffairs.vancouver.wsu.edu/student-wellness-center/access-center)

Classroom Building, Room 160, (360)546-9238,

[van.access.center@wsu.edu](http://van.access.center@wsu.edu)

**Center for Intercultural Learning and Affirmation -**

<https://studentaffairs.vancouver.wsu.edu/student-diversity>, Firstenberg Student Commons, Room 104, (360)546-9182, [van.studentdiversity@wsu.edu](mailto:van.studentdiversity@wsu.edu)

**Veteran's Center -**

<https://studentaffairs.vancouver.wsu.edu/veterans-affairs/veterans-center>, Classroom Building, Room 212, (360)546-9570

**Cougar Food Pantry -**

<https://studentaffairs.vancouver.wsu.edu/cougar-food-pantry>

**Campus Police -**

<https://www.vancouver.wsu.edu/public-safety/campus-police>  
(360)546-9001, (non-emergency, for emergencies call 911), [wsuvcops@wsu.edu](mailto:wsuvcops@wsu.edu)

**Tri-Cities**

**Health and Wellness -**

[tricities.wsu.edu/healthandwellness/](http://tricities.wsu.edu/healthandwellness/), 24 hour nurse advice: (509)335-3575

Tri-Cities Campus Counselor: (509)372-7153

**Access Services -**

[tricities.wsu.edu/current-students/disability/](http://tricities.wsu.edu/current-students/disability/), Floyd 269C, (509)372-7352

**Food Pantry -**

[tricities.wsu.edu/finaid/foodbank/](http://tricities.wsu.edu/finaid/foodbank/), Floyd 269/Cougar Cupboard

**Campus Safety & Security -**

[tricities.wsu.edu/safety/](http://tricities.wsu.edu/safety/), (509)372-7234 (non-emergencies, for emergencies call 911)

## **IV. Academic Requirements, Policies, and Procedures**

### **Continuous Enrollment**

All graduate students—full and part-time—must maintain continuous enrollment in the Graduate School from their first semester until their degree is completed, regardless of campus location. To maintain continuous enrollment, you must be registered for at least 2 graduate credits per semester, excluding summers. Students who are unable to maintain continuous enrollment (e.g. medical, family, financial, military service) may apply for Graduate Leave of Absence: see (<https://gradschool.wsu.edu/chapter-five-a6-7/>).

## **Minimum GPA**

Students must maintain a minimum cumulative 3.0 GPA to be considered in good academic standing. Failure to do so may result in probationary status or termination from the graduate program. Please see the Graduate School Policies and Procedures Manual, pp. 57-58, for details.

## **Total credits and satisfactory academic progress**

Students who accumulate more than 72 total credits in the course of a M.S. degree, or 180 total credits for a Ph.D. degree, are not considered to be making satisfactory academic progress. If they are receiving financial aid, they will have to appeal for the financial aid to continue. For details, see:

<https://gradschool.wsu.edu/documents/2015/05/financial-aid-notice.pdf/>

## **Annual Review of Graduate Students**

All graduate students and their advisors must complete an annual review of academic progress towards the degree. The review form is distributed to students. The review must be completed by the date stated on the form; this is normally near the beginning of the Spring semester. This is a university requirement. A copy of the form to be completed by SoE students appears as Appendix B. The review process is outlined in Chapter 6, Part B, of the Graduate School Policies and Procedures Handbook (Academic Evaluation of Students)

<https://gradschool.wsu.edu/chapter-six-b/>.

## **Important Forms for Navigating Your Degree**

Important forms for navigating your degree are found on the Graduate School's website: <https://gradschool.wsu.edu/students/>

The Program of Study should be completed and submitted to the Graduate school by the end of the second semester of study. Students plan their Program of Study in concert with their advisor and the thesis/dissertation committee.

## **V. Grievances**

Students should discuss problems with their advisor and the Graduate Program Coordinator, the SOE Director, or Associate Director for Graduate Studies. If problems are not resolved following those meetings, you should make an appointment to confer with the WSU ombudsman. The ombudsman is designated by the university to function as an impartial and neutral resource to assist all members of the university community. The ombudsman provides information relating to university policies and procedures and facilitates the resolution of problems and grievances through informal investigation and mediation. The office does not replace or supersede other university



grievances, complaint or appeal procedures but is another avenue available to graduate students who wish to seek assistance in resolving concerns related to their graduate program. The contact information for the University Ombudsman's Office may be accessed [here: http://www.wsu.edu/~ombuds/](http://www.wsu.edu/~ombuds/)

Graduate students should refer to the Educational Policies and Procedures Manual (EPPM), Chapter IV, Sections 104 and 105 if they have a complaint about instruction or grading. This document can be found on-line at <http://facsen.wsu.edu/eppm/>.

The University Grade Appeals Board, an official committee of the University President, functions to review academic grade appeals forwarded by any departmental chair, dean, Graduate School Dean, or university ombudsman. A detailed description of this committee and its processes may be accessed here: <http://president.wsu.edu/office/presidential-committees/academic-grade-appeals-board.html>.

For more information, see the Graduate Student Rights and Responsibilities <https://gradschool.wsu.edu/chapter-twelve/>

## **VI. Overview of Research Facilities in SoE**

### **WSU Pullman**

On the Pullman campus, the faculty and students are located in Troy Hall, Heald Hall, Fulmer Hall, PACCAR and the Webster Physical Sciences Building. The SoE administrative offices are located in Webster.

The **GeoAnalytical Laboratory** in the Webster Science Building is nationally and internationally renowned. Equipment in the Laboratory includes a Thermo-ARL X-ray fluorescence spectrometer, a JEOL JXA-8500F field-emission electron microprobe, an Agilent 7700 quadrupole ICP-MS, a high resolution Thermo-Finnigan Element2 ICP-MS, a Thermo-Finnigan Neptune multicollector ICP-MS and a New Wave UP213 laser ablation system that can be used with any of the 3 ICP-MS instruments. Additional equipment includes two Thermo-Finnigan-MAT gas source mass spectrometers, a Siemens X-ray powder diffractometer, and full sample preparation and clean lab facilities for isotope geochemistry.

The **E.H. Steffen Center** is a 58-acre field and laboratory research and teaching facility located on the east edge of the WSU Pullman campus. The facility includes controlled environment greenhouses equipped with supplemental lighting, connecting head house, controlled environment germinators, laboratories, classroom, offices and shop area. The shop contains metal and wood power tools, and plant processing equipment, including 2 large drying

ovens. The E. H. Steffen Center also includes indoor and outdoor captive wildlife facilities, several small forest plantations, wetlands, uplands, and numerous specialized planting areas.

The **Wildlife Habitat and Nutrition Lab** located in Vogel Hall provides laboratory services and training for determining diet composition of animals, and chemical analyses (protein, fat, fiber, ash, energy, digestibility) of forages.

The **WSU Bear Research, Education and Conservation Center** is a one-of-a-kind facility that aims to provide information and understanding for bear conservation around the world. Our research covers a range of disciplines including nutrition, physiology, ecology, behavior, reproduction, learning and memory.

The **Wild Ungulate Facility** supports a variety of research on the nutritional, reproductive and habitat ecology of deer, with the goal of improving conservation and management of these native species. The facility includes five pens spanning 8 acres and a barn with 3 large and 7 smaller indoor pens. The Wild Ungulate Facility currently supports a herd of tame mule deer, black-tailed deer, and white-tailed deer.

### **WSU Vancouver**

On the Vancouver campus, SoE faculty, students and staff are located in the Science and Engineering Building (VSCI). VSCI houses all SoE faculty offices and laboratory spaces, as well as most graduate student offices. Shared campus research facilities available to SoE graduate students include a 3,150 ft<sup>2</sup> research greenhouse with six independently-controlled growth rooms and large head house, a molecular/genetic analytical laboratory, microscope and dark room, several Conviron environmental chambers, walk-in freezers and refrigerators, as well as a machine chop. Additional facilities are under the direction of particular SOE faculty members, including a sediment core incubation facility, and several small research vessels for work in lakes, rivers and the coastal ocean.

### **WSU Tri-Cities**

On the WSU Tri-Cities campus, SoE personnel offices and laboratories are located in the East Building. SoE research facilities include the Food and Environmental Quality Lab, an environmental analytical laboratory for studying organic contaminants like pesticides. Another facility is the Biogeochemistry Lab dedicated to aquatic ecology research and nutrient cycling. Other cooperating facilities include a Microbial Ecology Lab dedicated to the studies of the role of arbovascular mycorrhizae in ecosystem restoration, and the

Bioproducts Science and Engineering Lab dedicated to research in identifying non-energy products that can be used to promote energy sustainability.

### **WSU Puyallup Research and Extension Center**

The Puyallup Research and Extension Center plays a vital role in providing high quality research, extension and instruction programs to the people of Washington state. These programs support technological innovation, food production, natural resource stewardship, youth development, human nutrition and community enhancement. The Center's faculty, staff and graduate students from 11 academic departments address complex biological, ecological and social issues.

The 160-acre main campus is comprised of laboratories and offices, state-of-the-art greenhouses, a Master Gardener demonstration garden, the Washington Stormwater Center and associated Low Impact Development (LID) research installations, six acres of certified organic farmland, and several acres of agricultural and natural resource plots. There are an additional 112 acres of research plots including turfgrass, berry breeding and disease, and poplar research at the R.L. Goss Farm. The Center houses multiple world class research and extension programs, as well as much of the leadership for the many statewide Extension and outreach programs.

## **VII. WSU Center for Environmental Research, Education and Outreach (CEREO)**

Building on grassroots energy and passion, CEREO serves as a progressive hub for environmental research, education and outreach at Washington State University. CEREO is a progressive network of more than 350 faculty, staff, students, and industry leaders working to resolve environmental issues through collaborative partnerships. Guided by a roster of distinguished scientists, CEREO seeks to apply innovative technologies and management tools to the ever-growing challenges of global climate change and environmental sustainability.

Faculty within the School of the Environment work closely with CEREO to foster interdisciplinary collaborations in all aspects of Earth, environmental and natural resource science. See <http://www.cereo.wsu.edu> for more information about CEREO activities and programs.

## VIII. SoE Graduate Program Administration

The graduate programs operated by the School of the Environment are administered according to Program Bylaws approved by the Graduate School. Copies of bylaws for each degree program can be found at the departmental offices, or from the Associate Director for Graduate Programs. Additionally, graduate students must abide by and meet the regulations and policies set forth in the current the Graduate School Policies and Procedures Manual. The manual is available here:

<https://gradschool.wsu.edu/documents/2017/03/policies-procedures-manual-2017-18.pdf/>

**The Graduate School:** This web site has an abundance of important information you need to know concerning your graduate studies at Washington State University, including but not limited to: financing your education, residency requirements, health services, housing, child care, and international student concerns. The Graduate School Policies and Procedures Manual is also found here. <https://gradschool.wsu.edu/>

One of the most important components of the Graduate School website is the 'Forms' page. The forms found here will be used for critical official steps in your graduate program. Typically, these forms will be signed by you (student), your faculty advisor (committee chair), members of your committee, and the Associate Director for Graduate Programs. These forms will be discussed in greater detail later in this document. <https://gradschool.wsu.edu/facultystaff-resources/18-2/>

**Office of the Registrar:** This is the main academic website. It has general announcements and lists upcoming academic events and links to the time schedule, academic calendar, academic regulations, the University Catalog, residency information and more. <http://registrar.wsu.edu/>

**Time Schedule** (schedules of classes): Includes detailed course listings, information on registration procedures, payment of fees, textbooks, and the University academic calendar. <http://schedules.wsu.edu/>

## SoE Faculty and Staff Directory

**Director:** Dr. C. Kent Keller, WSU Pullman, Webster 1229, [ckkeller@wsu.edu](mailto:ckkeller@wsu.edu), (509) 335-3009.

**Associate Director of Graduate Programs:** Dr. Matthew Carroll, WSU Pullman, Webster, [carroll@wsu.edu](mailto:carroll@wsu.edu), (509) 335-2235

**Program Leader in Vancouver:** Dr. Cheryl Schultz, WSU Vancouver, VSCI 230K, [schultzc@wsu.edu](mailto:schultzc@wsu.edu), (360)-546-9525

**Graduate Coordinator in Tri-Cities:** Dr. Allan Felsot, WSU Tri-Cities, East 128, [afelsot@wsu.edu](mailto:afelsot@wsu.edu), (509) 332-7365

**Associate Director of Undergraduate Programs:** Dr. Allyson Beall King, WSU Pullman, Fulmer 208, [abeall@wsu.edu](mailto:abeall@wsu.edu), (509) 335-4037

### SoE Faculty

Please see <https://environment.wsu.edu/people/> for a complete list of current SoE faculty and other personnel.

### SoE office staff (Pullman campus)

Sophia Hutton, Administrative Manager  
Webster 1234  
509-35-6227  
[sophia.hutton@wsu.edu](mailto:sophia.hutton@wsu.edu)

**For Administrative support please e-mail:**[soe@wsu.edu](mailto:soe@wsu.edu)

### SoE office staff (Vancouver campus)

Kirsten Johnson, Graduate Programs Coordinator  
VSCI 230  
360-546-9636  
[kirsten.johnson@wsu.edu](mailto:kirsten.johnson@wsu.edu)

Andrea Hanmann, Office Support Supervisor  
VSCI 230  
360-546-9630  
[ahanmann@wsu.edu](mailto:ahanmann@wsu.edu)

# **APPENDIX A**

## **Learning objectives and outcomes**

**School of the Environment**  
**Graduate program learning objectives and outcomes**

**Objective 1: To prepare students for professional careers**

<b>Outcome</b>	<b>Data</b>	<b>Source</b>	<b>Collected</b>
1a. attain knowledge and expertise in core disciplinary areas	i. course grades ii. (Ph.D. program only): pass/fail rate for students taking preliminary exams	i. Registrar's records ii. Ph.D. committee members	Annually
1b. think critically and develop creative solutions to scientific problems	Student-advisor interaction; progress in developing research project	Students' annual evaluations	Annually
1c. effectively communicate the results of their research	Number of student-authored publications, and conference presentations (abstracts)	Students' annual evaluations or faculty evaluations listing student presentations	Annually
1d. become visible members of the scientific community taking organizational and service roles	Student resumes	Students annual evaluations/faculty advisor	Annually, and at graduation

**Objective 2: To enable students to become effective researchers and teachers**

<b>Outcome</b>	<b>Data</b>	<b>Source</b>	<b>Collected</b>
2a. recognize important scientific problems and contribute to solving them	Knowledge of scientific literature; preparation of research proposal by end of first semester	Thesis/dissertation committee	Annually
2b. master the field, laboratory, data analysis and theoretical skills necessary to perform the research	i. course grades ii. (Ph.D. students only): pass/fail rate on preliminary exams iii. progress in addressing research project	i. Registrar's records ii. Ph.D. committee members iii. Student annual evaluations	Annually
2c. write research grant proposals or otherwise obtain research funding (expectation is higher for PhD students)	i. number of student proposals/applications for funding ii. success rate of funding applications	i. Student resumes and annual evaluations ii. Administrative records	Annually

2d. become effective teachers in field, laboratory and lecture-room settings	Teaching evaluations	Student annual evaluations	Annually
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**Objective 3: To provide scientific leadership and expertise at the local, state and national levels**

<b>Outcome</b>	<b>Data</b>	<b>Source</b>	<b>Collected</b>
3a. attract and retain world-class faculty in appropriate disciplinary areas	Faculty publications and presentations; external funding	Faculty annual evaluations	Annually
3b. assist students to engage in outreach activities	Time spent on outreach activities	Student resumes	Annually
3c. prepare students to successfully compete for jobs in industry, academia, and government	Job placement statistics	i. Faculty advisor ii. Social networks	Annually



## **APPENDIX B**

# **Specimen Graduate Student Annual Review Form**

**School of the Environment  
Graduate Student Annual Review**

Graduate student annual reviews of performance over the calendar year are undertaken in January each year. Please fill in the details requested below in Part I and then arrange a meeting with your major professor and your assistantship supervisor to complete the remainder of the review form. The completed form must be submitted to the Associate Director for Graduate Studies through via your Graduate Coordinator by February 15. All SoE graduate students are required to participate and a completed form is necessary for continued good standing as a TA/RA.

Please attach a copy of your current vita to the end of this form.

**Part I. To be completed by student.**

**Student's name:**

**Date:**

**Status:**  Full-time student

Part-time student

If your status is part-time student, fill in Part I through at least the Research Progress section and also state your source of support (for example, personal funds, internship through [organization name], etc.).

**Degree sought (check one)**

M.S. in Environmental Science

M.S. in Geology

M.S. in Natural Resource Sciences

Ph.D. in Geology

Ph.D. in Environmental and Natural Resource Sciences

**Date of entering current degree program at WSU:**

**Expected date of degree completion:**

**Has program of study been approved and filed (Y or N)?**

If no, anticipated date to file is:

**Advisor's name:**

**Committee members:**

**Thesis/dissertation title:**

Dates of Committee Meetings

**Describe the nature of your support during the evaluation period (e.g. 2 semesters' TA, one semester RA, one semester TA, etc.); if not supported by an RA or TA, state your source of support:**

**Ph.D. students:**

**Has preliminary (qualifying) examination been passed (Y or N)?**

If no, expected date of prelim exam:

**Cumulative GPA in current graduate program:**

**Coursework completed in your current program (add rows as necessary):**

Prefix	Number	Title	Credit hours	Grade

**Research progress during the evaluation period (if applicable, refer to goals set at the last evaluation):**



**Professional activities.**

**Research.** If this is your second, third or higher evaluation period, please record previous years in normal font, and use boldface for the current evaluation period within each category:

**Awards or scholarships**

**Proposals written or grants received**

**Professional meetings attended**

**Papers or book chapters published (give full citation including doi):**

**Abstracts published (give full citation)**

**Professional presentations not covered under ‘abstracts published’**

**Teaching.** If you have held a TA during the current or previous review periods, please complete the following (add rows as necessary):

Semester (e.g. F12, S13, Sum13)	Course prefix & number	# of students	Lab or lecture duties	Overall evaluation score

**Service.** Include any professional activities not covered above. Examples include outreach to other units at WSU and outside WSU, school-related community activities, being quoted in the media, etc.

**Objectives.** List your objectives and goals for the next evaluation period. Please be specific.

**Problems.** List here any issues (e.g. illness, funding problems, maternity leave) that have negatively impacted your functionality over the review period.

**Part II. To be completed by the advisor.**

**Performance.**

Category	Exceeds expectations	Meets expectations	Does not meet expectations*	NA (explain)
Coursework Performance (grades and progress towards completion)				
Research Performance				
Work Habits (includes mastery of literature)				
Technical Skills				
Rate of Progress				
Communication Skills				
Teaching Performance				
Overall Rating				

*\* Explain in detail below. The thesis or dissertation committee should work with the student to improve those areas in which (s)he is not meeting expectations. If the overall rating does not meet expectations, the AD for Graduate Studies or the campus Graduate Program Leader will meet with the thesis or dissertation committee to develop formal written recommendations.*

**Expectations for the next evaluation period:**

**Specific conditions that must be fulfilled prior to the next review period:**

**Enrollment should be continued \_\_\_\_\_ or discontinued \_\_\_\_\_**

**Signatures: \_\_\_\_\_**

Major Advisor:

Date:

Campus Advisor/Supervisor:

Date:

*(If major advisor is off-campus, the campus advisor must also review. It is the major advisor's responsibility to ensure that the campus advisor signs.)*

**To be signed by student:**

This evaluation has been discussed with me.

Signature

Date

**Comments on review by student (optional):**