

Environmental Science Graduate Program Student Handbook

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**ENVIRONMENTAL
SCIENCE**

Oklahoma State University

<http://esgp.okstate.edu>

[email: esgp@okstate.edu](mailto:esgp@okstate.edu)

*This handbook is designed to be an online document. While it may be printed for reference, it is subject to change.
Consult the online version of the handbook for the most up-to-date information.*

Environmental Science Graduate Program

Student Handbook

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Program Description

Overview

The Environmental Science Graduate Program (ESGP) at Oklahoma State University prepares graduate students for careers as environmental scientists. Our interdisciplinary degree program attracts and produces students capable of thinking beyond a single discipline. We work with 30 different departments on campus so our students can choose from more than 200 courses to develop a plan of study which addresses their individual career goals. We offer both [Master of Science](#) and the [Doctor of Philosophy](#) degrees at our main campus in Stillwater, Oklahoma. At our satellite campus in Tulsa, we offer the [Professional Science Master's Degree](#) (PSM) in Environmental Management, a program that is accredited by the National Professional Science Master's Association (NPSMA) and the first of its kind in Oklahoma.

Proven excellence

The Environmental Science Graduate Program (ESGP) at Oklahoma State University (OSU) is one of the oldest programs in the nation, having been founded in 1977. Over the last several decades, our program has graduated more than 150 Ph.D. and 370 M.S. students. ESGP graduates have gone on to be leaders in every facet of the environmental field. These individuals are now lead scientists at the U.S. Environmental Protection Agency (EPA), professors and deans at major universities, leaders in industry and the energy sector, CEO's of environmental consulting firms, sustainability experts, tribal environmental program leaders, environmental educators, and leaders in a wide variety of municipal, state and federal agencies.

Interdisciplinary degrees

ESGP students learn to identify environmental problems, examine issues from multiple perspectives, and devise holistic solutions which incorporate knowledge and/or skills from more than one academic discipline. The curriculum is designed to build awareness of environmental, ecological, social and economic issues as well problem-solving methodologies.

The ESGP Environmental Science Graduate Program is administratively housed in OSU's Graduate College. Our students often work with faculty advisors in other academic departments including Agricultural Economics, Biosystems and Agricultural Engineering, Civil & Environmental Engineering, Entomology & Plant Pathology, Entrepreneurship, Geology, Geography, Integrative Biology, Management, Mechanical Engineering Technology, Natural Resources Ecology and Management, Political Science, School of Teaching and Curriculum Leadership, Sociology and more. Prospective students are encourage to explore our list of [faculty affiliated with the ESGP](#) to identify individuals who share their research interests and who will be willing to serve as a research mentor and academic advisor.

Our unique approach to graduate education offers a flexible curriculum that allows students to customize their program of study to their particular interests. Working with their Advisory Committee, the student selects coursework to complement their research direction and career goals. Studies can focus on areas such as toxicology, risk assessment, education, sustainability, ecology, water, policy, conservation, soils and other topics that the students and faculty deem important for the future of the environment.

Department Goals

Mission Statement

The Environmental Science Graduate Program provides interdisciplinary understanding and appreciation of the interdependent relationships between social and natural systems and the skills to analyze, synthesize, manage, and disseminate environmental knowledge and research to find practical solutions to complex environmental problems.

Core Values

- *Excellence* - We seek excellence in all our endeavors and are committed to continuous improvement.

- *Intellectual Freedom* - We believe in ethical and scholarly questioning in an environment that respects the rights of all to pursue knowledge freely.
- *Integrity* - We are committed to the principles of truth and honesty and we will be equitable, ethical, and professional.
- *Service* - We believe that serving others is a noble and worthy endeavor.
- *Diversity* - We respect and value diversity of opinion, freedom of expression, and other ethnic and cultural backgrounds.
- *Resource Stewardship* - We are dedicated to the efficient and effective use of resources. We accept the responsibility of the public's trust and are accountable for our actions.
- *Sustainability* - We are committed to promoting societal development that is environmentally, economically, and socially sustainable.
- *Interdisciplinary Education and Research* - We recognize that environmental education, research, and service require an interdisciplinary understanding of the interactions and interdependencies between humans and nature; thus, we seek to incorporate interdisciplinary knowledge in our courses and interdisciplinary collaboration in our research.

Vision

The Environmental Science Graduate Program will have a national reputation in preparing students for successful careers in environmental professions and contributing to the advancement of environmental science.

To accomplish this, we will:

- Provide an interdisciplinary, but focused, curriculum that enables students to participate effectively in addressing environmental problems;
- Provide skills necessary to conduct and present environmental research; and
- Gain the support of alumni, employers, internship sponsors, and friends in our efforts at continuous improvement.

Administration & Staff

The Environmental Science Graduate Program is administrated by the Graduate College. The departmental office is located at 117 Life Sciences East, Oklahoma State University, Stillwater, OK 74078.

Director, Environmental Science Graduate Program

Dr. Scott Stoodley was appointed as ESGP Director by Dr. Sheryl Tucker, Dean of the Graduate College, in 2012. Dr. Stoodley has over 20 years of experience with water quality and other environmentally-related issues. He is federally appointed to the Northern Federal District Court of Oklahoma overseeing the lawsuit settlement agreement between the City of Tulsa and the Poultry industry over pollution of their water supply. He is the founder and President of Lake McMurtry Friends, which manages a 4,500-acre natural resource area for the City of Stillwater. In addition, he is currently President of the Oklahoma Clean Lakes and Watershed Association. During his career, he has worked for private industry, academia, non-profit organizations, and state government. Dr. Stoodley was previously the Director of Water Quality for the Oklahoma Conservation Commission in Oklahoma, overseeing the state's CWA Section 319 program. His responsibilities included oversight of a statewide water quality monitoring program, watershed assessment and planning, large and small-scale watershed restoration/ implementation projects, environmental education, and working with the legislature. His Ph.D. is from Oklahoma State University, where he worked with the Oklahoma Cooperative Extension Service and the Natural Resources Conservation Service. Subsequently, Dr. Stoodley worked for AMEC Earth & Environmental as a Senior Program Manager of Water Resources, overseeing all water resources-related programs for the Northeastern US. He also served on the National Water Resources Steering Committee, shaping policy and business strategy for the company throughout North America. Prior to his return to Oklahoma, Dr. Stoodley was a Vice President of Water Resources for ENTRIX Inc., overseeing their growth in the New England marketplace and continued work throughout

the State of Oklahoma. Dr. Stoodley led the efforts to develop the Professional Science Master's in Environmental Management and he oversees the program's ongoing recognition by the [Commission on Affiliation of PSM Programs](#).

Director, Professional Science Master's Degree in Environmental Management

Dr. Ken Ede was appointed Director for the Professional Science Master's in Environmental Management (PSM) at OSU-Tulsa by Dr. Tucker in 2018. He is also an adjunct professor in Management in the OSU Spears School of Business. Previously, Dr. Ede was the Associate Director of ESGP and served as the Assistant Dean of Engineering at Oklahoma State University. He received his Ph.D. from Oklahoma State University in Environmental Science studying under Dr. Marcia H. Bates in the School of Civil and Environmental Engineering. Dr. Ede is a Certified Hazardous Materials Manager (CHMM). He has taught numerous credit and non-credit environmental seminars, workshops, and courses for Oklahoma State University and served as the Non-Credit Curriculum Director for OSU's Professional Development Office for the School of Engineering. In addition to his academic contributions to Oklahoma State University, Dr. Ede served 18 years as the Environmental Health & Safety Manager for American Airlines Maintenance and Engineering Center in Tulsa, Oklahoma. Dr. Ede's thrust areas of research include Environmental Chemistry, Environmental Management, and Industrial Environmental Sustainability. He serves as academic advisor for all PSM students.

Program Coordinator

Dr. Kerri Farnsworth-Hoback joined the ESGP in 2017. Dr. Farnsworth was previously a Professor of Biology and Science Education at the University of Nebraska at Kearney; her tenure there included serving as the Program Chair for the Master of Science in Science & Math Teaching. Dr. Farnsworth earned a Ph.D. in Rangeland Ecosystem Science from Colorado State University. Her research characterized grasshopper community dynamics using spatial and multivariate analyses. She also held a post-doctoral position with the USDA Agricultural Research Service, where her focus was the prioritization of noxious weeds for biological control program development. Dr. Farnsworth supports the recruitment, application, admission and matriculation efforts of all ESGP programs.

Degree Programs

Master of Science (MS) in Environmental Science

Students may choose one of the following options:

Thesis option

The master's degree with thesis in Environmental Science is a 30 hour Plan of Study comprised of:

- 12 hours of required core courses (see below)
- 12 hours of elective courses
- 6 hours of thesis
- Thesis defense

Non-thesis option

The master's degree in Environmental Science with the non-thesis option is a 32 hour Plan of Study comprised of:

- 12 hours of required core courses (see below)
- 18 hours of elective courses
- 2 hours of thesis
- Formal Report presentation

Core Course Requirements

ENVR 5123 Environmental Problem Analysis

The purpose of this 3 credit hour course is to provide the students with an understanding of how to holistically approach environmental problem solving from an interdisciplinary perspective. Students will learn a methodological approach to problem solving. Students will also work in teams with individuals that have varying backgrounds in order to solve a real world environmental problem.

ENVR 5303 Issues in Environmental Sustainability

This 3 credit hour course reviews human-nature relationships and how they affect the ability of future generations to sustainably improve their quality of life. The course also considers methods of environmental stewardship that can contribute to sustainability. In-class and/or online discussions of issues, guest presentations by outside experts, and reports on selected topics are included.

Natural or Physical Science

A minimum of 3 credit hours of natural or physical sciences is required. The student should consult with their academic advisor to select a course that is environmentally related and consistent with the student's Plan of Study.

Skills Course

A skills course is required to ensure that students learn practical skills that will ultimately help them in their future workplace. Master's students should take at least one 3 credit hour course. Students should consult with their advisor and committee for guidance on relevant courses that will fulfill this requirement.

ENVR 5000 Master's Thesis

Students writing a thesis will take a minimum of 6 credit hours of ENVR 5000. Students writing a formal report for the non-thesis degree option will take at least 2 credit hours of ENVR 5000.

Electives (12 to 18 credit hours)

Students should consult with their advisor and committee for guidance on relevant courses to comprise the balance of the Plan of Study.

Interdisciplinary Research Requirement

Master's students must complete one of the following research options: Thesis or Formal Report. The Thesis option consists of 30 hours of coursework and 6 hours of thesis; the Report option consists of 30 hours of coursework and 2 hours of thesis. Both options include oral and/or written presentation of a research proposal and an oral presentation of the final product.

The ESGP program is an interdisciplinary program and thus the students' research efforts are expected to address an environmental problem from multiple perspectives, which should include a social and/or economic perspective. Students should consult with the Program Director regarding this requirement.

Advisory Committee

The MS student's Advisory Committee will consist of at least three members of the OSU Graduate Faculty. One committee member will serve as the student's research advisor. Students consult with their advisor and committee to create a Plan of Study and meet regularly to review progress. The Plan of Study must be submitted to the Graduate College and ESGP Coordinator prior to the completion of the **second semester** (excluding summer sessions) of enrollment in the Master's program. Note that adjunct faculty cannot serve as committee chairs.

Professional Science Masters (PSM) in Environmental Management

The Environmental Management-Professional Science Master (PSM) is an innovative graduate degree designed to allow students to pursue advanced training in science or mathematics, while simultaneously developing highly valued workplace skills. The program combines rigorous study in environmental science with skills-based coursework related to management, policy, or law. Students gain additional hands-on professional experience by completing a capstone project and internship.

The PSM program is located on our satellite campus in Tulsa, Oklahoma. Coursework is typically taught in Tulsa and most classes take place between 4:30 and 10:00 p.m. to accommodate the needs of industry professionals who are earning the degree while maintaining full-time employment. This degree option is not a traditional master's degree and does not require a thesis. As a terminal degree with an applied focus, the PSM is designed for those who do not intend to pursue a Ph.D.

Our PSM program is recognized by the [Commission on Affiliation of PSM Programs](#) (PSM National Office). Dr. Ken Ede is Director of the Professional Science Master program.

Degree Requirements

The PSM is a non-thesis degree with a 33 hour Plan of Study comprised of:

- 12 hours of required core courses (see below)
- 21 hours of elective courses

Core Course Requirements

ENVR 5123 Environmental Problem Analysis

The purpose of this 3 credit hour course is to provide the students with an understanding of how to holistically approach environmental problem solving from an interdisciplinary perspective. Students will learn a methodological approach to problem solving. Students will also work in teams with individuals that have varying backgrounds in order to solve a real world environmental problem.

ENVR 5303 Issues in Environmental Sustainability

This 3 credit hour course reviews human-nature relationships and how they affect the ability of future generations to sustainably improve their quality of life. The course also considers methods of environmental stewardship that

can contribute to sustainability. In-class and/or online discussions of issues, guest presentations by outside experts, and reports on selected topics are included.

ENVR 5503 Environmental Management Practicum

This course introduces strategies for the design and operation of environmental management systems that reduce environmental impacts in conformance with ISO 14000 standards. Topics include aspect identification, impact assessment, impact reduction strategies, and management oversight. Other topics such as training, internal and external auditing, and integration with other management programs will also be addressed.

ENVR 5510: Environmental Management Internship

The internship is generally taken during the last semester of the PSM degree for three (3) credit hours. It can be taken earlier but must involve at least 240 contact hours under supervision of a knowledgeable professional environmental manager. During the internship, the student must identify an environmental problem and solve and/or propose well-researched possible solutions to the problem. The student is responsible for submitting written weekly progress reports to their committee to document their progress. The internship culminates in a written report and an oral presentation. Dr. Ken Ede supervises the internship course and schedules the presentations.

Natural or Physical Science

A minimum of 3 credit hours of natural sciences or physical is required. The student should consult with their academic advisor to select a course that is environmentally related and consistent with the student's Plan of Study.

Doctor of Philosophy (Ph.D.) in Environmental Science

The Doctor of Philosophy degree requires a minimum of 60 credit hours beyond the MS degree. The Ph.D. curriculum includes 36-45 hours of course work hours and 15-24 dissertation hours. At least 75% of courses listed on the Plan of Study must be at the 5000 or 6000 level. The course work will include the following:

Core Course Requirements

ENVR 5123 Environmental Problem Analysis

The purpose of this 3 credit hour course is to provide the students with an understanding of how to holistically approach environmental problem solving from an interdisciplinary perspective. Students will learn a methodological approach to problem solving. Students will also work in teams with individuals that have varying backgrounds in order to solve a real world environmental problem.

ENVR 5303 Issues in Environmental Sustainability

The course reviews human-nature relationships and how they affect the ability of future generations to sustainably improve their quality of life. The course also considers methods of environmental stewardship that can contribute to sustainability. In-class and/or online discussions of issues, guest presentations by outside experts, and reports on selected topics are included.

Natural or Physical Science

A minimum of 3 credit hours of natural or physical science is required. The student should consult with their academic advisor to select a course that is environmentally related and consistent with the student's Plan of Study.

Skills Course

A skills course is required to ensure that students learn practical skills that will ultimately help them in their future workplace. Doctoral students should take 6 hours. Students should consult with their advisor and committee for guidance on relevant courses that will fulfill this requirement.

Advisory Committee

The Ph.D. student's Advisory Committee will consist of four faculty members from at least two departments and least two different Graduate Faculty groups. The student should consult with their faculty advisor to select committee members. The outside committee member is to represent the Dean of the Graduate College, must be a full member of the Graduate Faculty, and may not be from the same department as the Committee Chair. Students consult with their committee to create a Plan of Study prior to completion of their 28th credit hour (third semester). The Advisory Committee administers the Comprehensive Exam. Note that adjunct faculty cannot serve as Advisory Committee chairs.

Admission to Doctoral Candidacy

Doctoral students must be admitted to candidacy no less than six months prior to graduation and maintain continuous enrollment of at least two credit hours in every fall and spring semester until graduation. The Graduate College requires the following to fulfill the candidacy requirements for the doctoral degree:

1. an approved Plan of Study,
2. a dissertation proposal which has been approved by the student's current Advisory Committee, and
3. successful completion of both written and oral comprehensive examinations.

Comprehensive Exams

Doctoral students are required to take both written and oral comprehensive exams. The student's Committee Chair will be responsible for conducting the exams; all members of the student's Advisory Committee shall have the opportunity to submit both oral and written examination questions. Doctoral students must take the comprehensive exam after completing (1) at least 30 hours, but no more than 45 hours, of course credit and (2) before enrolling in the last 10 hours of dissertation research (ENVR 6000). Exceptions may be granted only with approval of the student's Committee Chair and the ESGP Director. The presentation of the dissertation proposal is usually integrated with the oral portion of the comprehensive exam, although this is not a requirement. See [Conduct of Doctoral Comprehensive Exams](#) for additional information.

Doctoral Candidacy Enrollment Requirements

Doctoral students who have completed the requirements for admission to doctoral candidacy and had their "Admission to Doctoral Candidacy" form approved by the Graduate College may enroll for a minimum of at least two credit hours during any term and be considered full-time. This post-candidacy reduced enrollment option applies to all qualified graduate students, including GTAs, GRAs, international students and veterans receiving VA benefits. A student is normally expected to enroll primarily in research hours or in program-approved courses after being admitted to doctoral candidacy.

Dissertation

Every doctoral student must complete and defend a research-oriented dissertation. As the ESGP program is an interdisciplinary program, the students' research efforts are expected to address an environmental problem from multiple perspectives, which should include a social and/or economic perspective. Students will work closely with their committee members to develop a dissertation proposal; this is typically presented to the Advisory Committee in conjunction with the oral portion of the comprehensive exam. See [Preparation and Defense of a Dissertation Proposal](#) for additional information. Upon successfully defending the research proposal, the student shall submit a copy of the dissertation proposal to the ESGP Program Coordinator.

When the doctoral candidate has complete their dissertation work, s/he should consult with their advisor and committee members to schedule a final dissertation defense. The dissertation defense includes a public seminar and a closed examination by the Advisory Committee. See [Final Dissertation Defense](#).

Admissions

Program Prerequisites

All students are required to have completed college-level courses that address the fundamentals and principles of chemistry, biology, and algebra prior to admission. When the letter grade earned in a prerequisite course is less than “B”, the prospective student may be asked to retake the course or take another that will prove proficiency. A partial list of courses that fulfill these prerequisites is available on the [ESGP website](#).

Campus Selection

We offer traditional Master of Science degrees (both thesis and formal report options) at our main campus in Stillwater, Oklahoma. At our satellite campus in Tulsa, we offer the Professional Science Master’s (PSM) in Environmental Management.

We offer Doctor of Philosophy degree program at our main campus in Stillwater, Oklahoma. Due to the lack of faculty advisors and research facilities, we are unable to offer the PhD program at our satellite campus in Tulsa.

Test Scores

ESGP does not require the GRE exam. Information about English proficiency and cut scores is available at <https://gradcollege.okstate.edu/prospective-students/english-proficiency.html>.

Application Requirements

Prospective students applying to the Environmental Science Graduate Program complete an [online-application](#) with the OSU Graduate College that includes **all** of the following:

- A non-refundable application fee.
- One original transcript from **each** college or university attended, including transfer credit.
 - *For Ph.D. applicants, the cumulative grade point average (GPA) must be 3.0 or higher.*
 - All transcripts should be scans of official transcripts showing the college’s or registrar’s original seal and any degrees completed.
- TOEFL/IELTS (if required to establish English proficiency).
 - *A minimum iBT TOEFL score of 79 (or 550 paper-based), or a minimum IELTS overall score of 6.5 is required.*
- Current and complete resume or Curriculum Vita.
 - *For Ph.D. applicants, this should include the citation of the completed Master’s thesis.*
- A Goal Statement (1-2 pages) explaining how prior academic and professional experiences have prepared the applicant for graduate-level study and how the degree program will contribute to the applicant’s career aspirations and desired areas of competency.
- Three letters of recommendation.
 - These should be from individuals who know the student professionally, including academic advisors and former professors who can address applicant’s academic record and potential for successful graduate-level work.
 - Letters should be written on the official letterhead of the recommender’s institution/organization/employer.
- An Agreement to Advise Statement from an OSU faculty member who will serve as the student’s advisor and Committee Chair.
 - This statement can be in the form of an email from the advisor to the ESGP Coordinator.
 - The applicant is responsible for contacting faculty to secure their consent to serve as advisor.

- A list of faculty with environmental science research interests is available on the [ESGP website](#). Applicants can be provisionally admitted with a temporary advisor, with the understanding that a permanent advisor must be identified to continue in the program.
- Applicants to the PSM program are advised by Dr. Ken Ede.

All application materials are uploaded through our online application system. Documents should not be sent to the department via email unless specifically requested.

Application Deadlines

The ESGP Admission & Retention Committee reviews applications three times per year. Only applications that are completed (i.e., all of the required documents have been uploaded) by the deadline are reviewed for admission during a given cycle. Applicants are urged to submit their application materials well in advance of the deadlines below to ensure sufficient time for recommenders to submit letters of reference. International applications take additional time to process. *International applications that become complete after these deadline dates may be reviewed, but the Graduate College cannot guarantee an admissions decision will be made with sufficient time for the issuance of the I-20 form required to obtain an entry visa.*

For admission during:	Submit complete application by:
Fall semester	April 15 (February 1 if international)
Spring semester	September 15 (August 1 if international)
Summer semester	January 15 (November 1 if international)

Financial Affidavit

The Graduate College requires a financial statement for international applicants expecting to be F1 or J1 visa holders. This [Financial Guarantee](#) documents the availability of sufficient financial resources to meet the student's prospective educational and living expenses while in the U.S. This document must be completed before a Certificate of Eligibility (I-20 or DS-2019) can be issued.

Policies and Procedures

Graduate Student Responsibilities

Graduate students are expected to be aware of and satisfy all regulations governing their work and study at Oklahoma State University, including those published by the Graduate College. Please refer to the Graduate College Monday Memo (sent via email) and [Graduate College website](#) for information on services for graduate students, funding for graduate education, enrollment requirements, academic regulations, and deadlines.

Enrollment Requirements

Oklahoma State University (OSU) graduate students are expected to maintain active status through continuous enrollment from the time they matriculate until they graduate. Students who are not able to maintain active status are strongly encouraged to consult with their program, advisor, and Graduate College to determine whether requesting a leave of absence (LOA) is the most appropriate course of action. International students must consult with the International Students and Scholars (ISS) office to ensure compliance with Federal immigration policy. ***It is the responsibility of the student to verify his/her enrollment. Errors in enrollment that are due to student error may not be corrected after the final date to enroll.*** Every student should print their class schedule and verify enrollment **before** the term begins. Students on assistantship (whether funded by ESGP or otherwise) must comply with the academic standing and minimum enrollment requirements published by the Graduate College. See <https://gradcollege.okstate.edu/prospective-students/enrollment-guide.html>.

Assistantships

Students who are pursuing MS (with thesis) or PhD degrees may be eligible for assistantships to help fund their graduate studies in the Environmental Science Graduate Program. Possible sources of funding include:

1. ESGP Department Graduate Research Assistantship (GRA)
 - a. Applicants are evaluated upon admission for an ESGP assistantship. There is no need to apply separately.
 - b. Only the strongest applications will potentially receive ESGP funding. Applications which include GRE scores will be more competitive than those without.
 - c. Funding includes a tuition waiver and monthly stipend.
2. Advisor Funding
 - a. The faculty advisor may choose to offer the student a Research or Teaching Assistantship (GRA or GTA), if funds are available. Such appointments are made via the advisor's department (not ESGP) and may or may not relate directly to the student's thesis or dissertation.
 - b. Stipends vary by department, but all include a tuition waiver.
3. Other funding options may be available; for more information, refer to the Graduate College: <https://gradcollege.okstate.edu/prospective-students/assistantships.html>

Academic Policies

These departmental guidelines are intended to complement the [University Academic Regulations](#) and the [University Catalog](#) published by the Registrar, including the [Graduate Catalog](#). Students should consult those sources for additional information.

Transfer of Credits

With approval, a student may transfer a **maximum** of nine (9) semester hours of credits that have not been applied toward a previous degree. Transferred credit must have been earned when the student was post-baccalaureate (i.e. after earning a bachelor's degree) at an accredited institution where the applicable course work was certified as graduate-level credit. Only courses in which a grade of "B" or better was earned will be considered for transfer credit. The student's Advisory Committee determines whether transfer credit may be applied to the Plan of Study.

Graduate Credit Courses

Courses numbered 5000 and above are for graduate students. Courses numbered 3000 and 4000 that are identified by an asterisk in the "Course Descriptions" of the Catalog can be taken by graduate students and may be used to meet requirements for a graduate degree on the Plan of Study if approved by the student's Advisory Committee and the Dean of the Graduate College. In order to receive graduate credit, students must enroll in the G section of the course. Graduate students enrolled in these courses will be considered as taking the courses for graduate credit (unless they pre-declare the course as taken for undergraduate credit; forms are available from the Graduate College) and will be expected to complete additional assignments at an intellectual level commensurate with graduate level work as proposed by the instructor. Courses not identified by an asterisk may not be used to fulfill requirements for a graduate degree. Senior undergraduates who have obtained prior approval from the Graduate College may enroll in graduate level courses in accordance with the provisions of the University Catalog.

Academic Standing

Minimum Grade Requirements. A grade-point average of "B" (3.00) is required to (1) maintain good standing as a graduate student and (2) meet requirements for a degree. In order to continue enrollment in the Graduate College, a student must maintain a minimum graduate GPA of at least 3.00. In order to receive a degree, a student must have a minimum 3.00 GPA in the course work listed on the Plan of Study. In determining whether a student has met minimum requirements for a degree, grades for courses on the Plan of Study are averaged separately from courses not on the Plan of Study. No course with a grade below "C" can be used as part of the minimum number of semester credit hours required for the graduate degree. At the graduate level, a grade of a "D" or "F" is considered a failing grade that can result in dismissal by the dean of the Graduate College, regardless of academic standing. No course with a grade of "D" or "F" can be used on the Plan of Study to satisfy the degree course requirements.

Academic Progress

Each semester, the department reviews the academic progress of all students. Any graduate student who receives a grade of "C" or lower in a class or "UR" in research will be subject to one of the following actions, depending on the student's current performance, past academic history, and the discretion of the Dean of the Graduate College:

1. **Program Notice.** The program department will review the student's performance to determine if any program intervention is needed.
2. **Academic Probation.** If a student's overall GPA drops below 3.00, if a "UR" grade is earned, or if the dean of the Graduate College judges the student's overall academic performance so warrants, the student will be placed on academic probation. Probation may be removed at the end of the semester only after the student (a) brings their cumulative GPA for courses eligible for graduate credit taken at OSU to 3.0 or greater, (b) earns a grade of SR, and/or (c) completes all degree requirements, whichever comes first.
3. **No Further Enrollment Without Program Consent (NFEWPC).** Under certain circumstances, such as when the student did not meet the requirements of provisional admission or the Program Director believes the student's overall academic performance warrants intervention, the student is not permitted to enroll further. The student will be notified by email when a NFEWPC hold is in effect. To continue in the program, the student must submit a written petition to the Dean of the Graduate College requesting reinstatement and outlining a plan to remedy the academic situation, along with a letter of support from the Program Director, by the date given in the NFEWPC notice. Failure to submit such a reinstatement petition could result in the canceling of any pre-enrollment for the upcoming semester.
4. **No Further Enrollment (NFE).** When the student has consistently performed below the acceptable standards for graduate students, the student is not permitted to continue graduate study at OSU. In such cases, the procedure outlined in the [Graduate Catalog](#) will be followed.

Grades & Appeals

Policies regarding grades for thesis and dissertation hours, creative component courses, and courses taken under the Pass-No Pass or Pass-Fail grading system, as well as grade appeals, can be found in the [Graduate Catalog](#).

Advisory Committee Decisions

In decisions resulting from a vote of a graduate student Advisory Committee (e.g., comprehensive / Ph.D. candidacy exam, final thesis defense, approving a dissertation, etc.), a passing vote requires that the thesis/dissertation advisor vote in the affirmative and that no more than one member of the committee dissent.

Responsible Conduct of Research

All graduate students are required by university policy to complete, on a one-time-only basis early in their graduate study, an online training module on responsible conduct of research (RCR). RCR training must be completed prior to filing a Plan of Study. Information is available at <https://research.okstate.edu/compliance/rcr/training.html>. The student is responsible for completing the training and submitting the completion certificate to the ESGP Coordinator for filing. Any research involving human subjects is governed by federal regulations that require review by the OSU Institutional Review Board (IRB). Approval to conduct the research must be obtained from the IRB before the research is started. Failure to obtain IRB approval will result in the University's rejection of the thesis, dissertation, or formal report. Information about the IRB review process is available at <http://compliance.okstate.edu>.

Plan of Study

All students must submit a Plan of Study early in their matriculation. The Plan of Study guides the student in selecting coursework to fulfill their degree requirements. Students pursuing the Master's Degree, including the PSM, must submit a Plan of Study by the end of the second semester (excluding summers) of enrollment; doctoral students submit a Plan of Study by the end of the third semester. Failure to meet these deadlines will result in a hold on registration. More information is available at <https://gradcollege.okstate.edu/resources/current-student-resources.html>.

Graduation Clearance Process

Students nearing the end of their degree should consult the appropriate [graduation checklist](#) from the Graduate College to ensure that all requirements have been met. Clearance for graduation is a three-step process, involving the department, the Graduate College, and the Office of the Registrar. [Deadlines](#) are set by the Graduate College; students are urged to submit forms as early as possible in the graduating semester.

Plans of Study, Graduation Clearance Forms, and Committee Change Forms are completed and submitted through the [Round-Up System](#). Graduation Applications are completed and submitted through the student's [Self-Service](#) account. The [Graduation Application](#) becomes "unlocked" with an approved Graduation Clearance Form. (Revisions to the Plan of Study and committee changes must be made prior to filing the Graduation Clearance form.) The Graduation Clearance form is reviewed by the academic advisor who confirms that a student has met, or will meet by the end of the semester in question, all departmental and Graduate College requirements to earn the degree sought. If these requirements are not met, the student must complete a new Graduation Clearance Form and Graduation Application for a future semester.

Workshop Requirement

All graduate students who intend to complete a thesis or dissertation are required to complete a workshop, either in person or online, to review thesis/dissertation formatting requirements. See "Thesis & Dissertation Guidelines" at <https://gradcollege.okstate.edu/resources/current-student-resources.html> and the Monday memo for more info.

Program Assessment

Upon completion of degree, students must also complete a [Program Assessment form](#) and return it to the ESGP Coordinator.

Conduct of Doctoral Comprehensive Exams

Ph.D. students must pass both written and oral exams to be admitted to doctoral candidacy. No exceptions are made. The Chair of the student's Advisory Committee is responsible for the administration of the comprehensive exams. All the members of the student's Advisory Committee shall have the opportunity to submit both oral and written examination questions.

Timing

The doctoral student should take the comprehensive exam (1) after completing at least 30 hours, but no more than 45 hours of course credit and (2) before enrolling in the last 10 hours of dissertation research. Exceptions may be granted only with approval of the student's Advisory Committee Chair and the Program Director.

The student should consult with their Advisory Committee Chair to determine readiness to take the exam. The Chair should provide guidance on what is expected of the student in the examination. The student is encouraged to consult with other members of their Advisory Committee to ascertain their exam performance expectations.

In practice, the oral portion of the comprehensive exam is usually combined with the presentation of the student's dissertation proposal. The student may present the proposal in a public forum, after which the public is excused and the Advisory Committee commences the oral questioning in a closed meeting, as described below.

Notification

When a student believes that s/he is ready to take the comprehensive exam, the student will notify the Advisory Committee Chair in writing and send a copy of the notice to the Program Director. The Chair will consult with other committee members to develop a list of questions and formulate an examination schedule. The Chair will inform the student of the schedule and specific examination format. The ESGP Program Coordinator should also be notified if there is a need to reserve a room for the defense; additional advance notice is needed if teleconferencing or videoconferencing is necessary.

Examination Content

Core Competency Areas: Every student must demonstrate competence in the knowledge and skills covered by the core curriculum. The comprehensive exam should be designed to elicit evidence of adequate competence in these areas.

Area of Claimed Expertise: Since environmental science is interdisciplinary, parts of the comprehensive exam can vary substantially from one student to another. Therefore, the exam will be tailored to the student's own professional specialization and plan of study. The examination should inquire into the student's area of claimed expertise, in addition to the core competency areas.

Written Examination

Recommended Format: The written examination must include questions from all committee members. The questions should be designed to elicit evidence that the student has obtained satisfactory mastery of the substantive knowledge and research methods relevant to the student's claimed area of expertise. The written exam should require the student to present answers that are well-articulated, rational, concise, responsive, and persuasive. As a result, closed-book exams are discouraged. Generally, two or three essay questions and/or problems (each can contain multiple parts) are provided by each committee member to the Advisory Committee Chair. This format requires the student to provide responses in the form of short papers (3-5 pages for each question) which include citations to relevant literature. Two to seven days should be provided between sets of questions; thus, the written portion of the exam takes place over a number of weeks.

Grading: Each question on the written exam should be graded as "high pass," "pass," "low pass," or "no pass" by the committee member who authored the questions. The member should then forward the grades, with comments, to the Advisory Committee Chair. The Chair will review the grades and comments and send a summary of the comments and the consensus grades to the student and the other committee members. If a student earns a "no pass" on any question, the Chair should consult with other committee members and reach consensus on whether to allow the student to proceed to the oral portion of the exam. If the student is not allowed to proceed, then the Chair will issue a failing grade on the written exam and communicate this to the student, along with the grades and comments provided by committee members. The student must be given a choice to retake the exam in its entirety or withdraw from the program. *Only one retake is permitted.* If the student wishes to retake the exam, he or she must wait *at least three months*. The Chair must inform the Program Director that the student did not pass the written exam and indicate whether the student wishes to retake the exam or withdraw from the program. If the committee decides that the student should proceed to the oral exam, then the Chair will so inform the student and provide the grades and comments offered by committee members.

Oral Exam

Scheduling: The oral examination should be held no sooner than two weeks nor later than four weeks after receipt of the grades and comments on the written exam. The Program Coordinator should also be notified if there is a need to reserve a room in which to conduct the exam.

Recommended Format: The oral exam should be limited to two hours and held in executive session (not open to the public). The Advisory Committee Chair is responsible for the conduct of the meeting. All committee members must participate in the oral examination. Generally, each committee member is allotted about 20 minutes to ask questions, which can include not only follow-up questions to the written examination but also other questions that the committee member believes is relevant to the student's claimed area of expertise. The Chair usually asks his or her questions after all other members have completed their examinations. The remaining time should be dedicated to an open-ended question and answer format.

Grading: At the conclusion of the questioning session, the student is asked by the Advisory Committee Chair to leave the room. The committee members then engage in a discussion to reach consensus on whether the student passed or failed the exam. The student is then be called back into the examination room and informed of the results by the committee. If the student passed, the committee Chair must so inform the Program Director by email, with a copy sent to the Program Coordinator. If the student did not pass the oral exam, then the Chair must inform the student of this and ask whether the student would like to retake the exam or withdraw from the program. *Only one retake is permitted.* If the student wishes to retake the exam, then the student must wait *at least three months and must retake only the oral examination.* The committee will provide to the student the appropriate steps to be taken for remediation. The Chair will inform the Program Director and Program Coordinator, by email, that the student has failed the oral exam and indicate whether the student wishes to retake the exam or withdraw from the program.

Student Preparation

Written Exam: The student should review course material and relevant literature. Organize notes and literature to ensure that answers to questions can be developed quickly and efficiently. If an open-book format is selected for the written exam, the student should initially prepare an outline for an answer to each question. This outline should include references to literature. The student should then compose the answer organized around the outline (3-5 pages per answer should suffice in most circumstances). Finally, the student should edit the answer to ensure that a well-articulated, thorough, concise, accurate, and compelling response is developed. A list of references must be added at the end of the answer.

Oral Exam: The student should review the comments offered by the committee members on the written exam and be prepared to address them. Special attention should be devoted to those questions that the student received grades of "low pass" or "no pass." The Advisory Committee Chair should be consulted to determine whether the student will be permitted to bring notes to consult during the oral exam; however, even if permitted, excessive consultation of notes will indicate to the committee that the student is not sufficiently prepared and may result in a failed exam. The student should keep in mind that the purpose of the comprehensive exam is to determine whether the student possesses adequate knowledge of the claimed area of expertise and can articulate answers in a professional manner and prepare accordingly. The student's Chair should be consulted for additional advice on preparation for the exam, including set-up of the room.

Preparation & Defense of the Dissertation Proposal

These policies govern the preparation and defense of the dissertation proposal, which is required by both the Graduate College and the Environmental Science Graduate Program for admission to doctoral candidacy. The dissertation proposal is a student-generated prospectus for the conduct of a doctoral research project that will culminate in a dissertation. The ESGP program is an interdisciplinary program and thus the students' research efforts are expected to address an environmental problem from multiple perspectives, which may include social and/or economic approaches.

All doctoral students must submit a written proposal of their dissertation research to their Advisory Committee and **submit a copy** to the ESGP Program Coordinator to be deposited in the student's file. The student must defend the dissertation proposal before their committee, and all committee members must participate in the proposal defense, either in person or via telecommunications. The Research Advisor is responsible for the scheduling and conduct of the

dissertation proposal defense; in most cases, the proposal defense is concurrent with the comprehensive exam. The student should work with the Research Advisor to assemble the proposal and prepare for its defense. The student is responsible for submitting the dissertation proposal to all committee members but must seek the approval of the Research Advisor before doing so.

The dissertation proposal serves as a vehicle to provide confidence that the student has thoughtfully and comprehensively prepared a research agenda that is likely to achieve success. The more detail offered at this stage, the more useful will be the committee's reactions and suggestions. It is important to note that the committee's approval does not guarantee research success; however, a good proposal will minimize chances of failure.

Timing

Once approved by the Research Advisor, the student must submit the final defensible draft of the dissertation proposal to other committee members *no later than* two weeks before the defense. **The student should consider scheduling the proposal defense immediately following the comprehensive exam, but in no case can the proposal be defended before passing the comprehensive exam.** The ESGP Program Coordinator should also be notified if there is a need to reserve a room for the defense; additional advance notice is needed if teleconferencing or videoconferencing is necessary.

Format

Table of Contents: Include a table of contents that reflects the anticipated contents of the entire dissertation. This informs the committee about how the student intends to organize the dissertation report. The contents must also include references to compliance documents, such as the approved Institutional Review Board form that is required if research on human subjects is proposed.

Chapter 1. The Research Question: This chapter presents the problem that the dissertation will address, refines the problem into a statement of one or more research questions, and presents an argument of why the solution to this problem is important. This chapter need not be a lengthy one; 3-5 pages will often suffice.

Chapter 2. The Literature Review: This chapter presents an organized and coherent review of relevant literature that frames the problem, reports on findings reached so far, and points out holes and deficiencies in the literature. This chapter could be quite long (e.g., 20 pages).

Chapter 3. The Research Methodology: This chapter presents and defends the student's proposed data collection and analytic methodologies as well as hypotheses, conceptual frameworks, models, and so on. The student must also provide a table that includes the major milestones and associated completion dates for the conduct of the research and the preparation and defense of the dissertation. This allows the committee to provide comments on the timeline and to plan their own schedules.

Chapter 4. Anticipated Results: This chapter presents the student's plan for displaying and interpreting the results that will emanate from the research and allows the committee to determine how well the student has thought through how best to present those results.

Proposal Defense

The dissertation proposal defense normally lasts about two hours. The student should dress in business attire and should consult with the Research Advisor for additional suggestions (e.g., scheduling of time and place, modest provision of snacks and beverages, etc.). The defense typically begins with a 30-40 minute professional presentation by the student of the dissertation proposal. The presentation is followed with questions from committee members. Suggestions for improvement are offered. It is important to keep in mind that this defense is not an examination but rather an opportunity to gain reaction from the entire committee and to seek formal approval for the planned research.

The defense will conclude with one of two outcomes:

1. The student may proceed with the planned research after incorporating changes suggested by the committee and in accordance with directions given by the Research Advisor. The student must complete, and committee members sign, an [Admission to Doctoral Candidacy form](#) and submit it to the Program Coordinator, who will submit it to the Graduate College. Official admission to candidacy occurs upon signature by the Graduate Dean.

2. The student must substantially revise the proposal and defend the revision before the committee. This outcome is the result of the committee's judgment that the proposal is not sufficient or complete enough to evaluate satisfactorily. While there is no limit to the number of times that a student can re-defend, *the committee can decide that the student is not able to develop an acceptable dissertation proposal and thus recommend that the student not be allowed to continue in the program.* If this is the conclusion reached by the committee, the Research Advisor (and Committee Chair, if different) must inform the Program Director by email of their conclusion.

Final Dissertation Defense

The defense of the final dissertation will be conducted in similar manner to the proposal defense, following the [Best Practices for Theses and Dissertations](#) published by the OSU Graduate College. The ESGP Program Coordinator should be notified *at least one week in advance* of the scheduled defense so that the public portion of the defense can be announced; additional advance notice is needed if teleconferencing or videoconferencing is necessary.

There are two possible outcomes of a dissertation defense: Pass – Student *has* satisfactorily completed the final defense and Fail – Student *has not* satisfactorily completed the final defense. Each member of the Advisory Committee must sign under one of the above statements recommending either a satisfactory or unsatisfactory defense. To be a considered a passing dissertation defense, the Research Advisor must vote in the affirmative and *no more than one member* of the Advisory Committee may cast a dissenting vote on the [Oral Defense Results Form](#). The form must be signed and returned to the Graduate College *immediately* following the defense, irrespective of the outcome. The result of the dissertation defense does not indicate approval of the dissertation document, but only the oral defense of the student's work.

If the oral defense is judged inadequate, a re-examination decision will be made by the Advisory Committee in accordance with Graduate College requirements. Generally, only a single re-examination is permissible. Should the Advisory Committee decide that re-examination is not allowed, the student has failed to successfully defend their dissertation and will be discontinued from the program. In such cases, the student may submit a written appeal to their Advisory Committee within 14 days of the defense. If the decision stands, the student may appeal the decision, in writing, to the ESGP Admissions and Retention Committee with 14 days of the Advisory Committee's ruling. If the decision is not overturned, the student may contact the Graduate College to appeal the program decision.

Master's Thesis Proposal

Students who are pursuing the master's degree with thesis option may be asked to prepare and present a thesis proposal to their Advisory Committee and/or advisor; however, a thesis proposal is not a requirement of the ESGP department.

Master's Thesis Defense

Students who are pursuing the master's degree with thesis option must complete at least six (6) credit hours of ENVR 5000: Thesis. The student must defend their completed master's thesis to their committee in the form of an oral presentation. The defense typically begins with a 30-45 minute public presentation, followed by a closed-door session during which the Advisory Committee members ask follow-up questions. All members of the student's committee must be involved with the defense, either in person or via teleconference. **Immediately** following the defense, the committee signs the [Thesis/Dissertation Oral Defense Form](#), which is then submitted to **both** the ESGP Coordinator and the Graduate College.

The master's thesis defense normally lasts about two hours. The student should dress in business attire and should consult with their Research Advisor and the ESGP Program Coordinator regarding additional preparations (e.g., room reservation, technology needs, modest provision of refreshments, etc.).

Thesis/Dissertation Guidelines

All theses and dissertations must follow the uniform [Thesis/Dissertation Guidelines](#) provided by the Graduate College. Model documents and templates are also available. While the traditional dissertation organization provided in the Graduate College template is acceptable, the dissertation may also be comprised of three (or more) journal articles, preceded by a chapter of introduction and followed by a chapter of conclusions. Some style differences may be

acceptable if approved by the student's Advisory Committee and academic discipline. However, the general formatting should match as closely as possible in order to maintain uniformity in all OSU publications.

Deadlines for submitting forms, dissertation, or thesis and for attending the thesis/dissertation review workshop can be found in the Monday Memo and on the Graduate College's [Academic Calendar](#). Information regarding how to submit the finished thesis/dissertation is available at <https://gradcollege.okstate.edu/resources/current-student-resources.html>.

Formal Report Guidelines

Master's degree students may choose the Research Report option for their research only upon approval by their advisor and committee. Students choosing the Report option are required to complete at least two (2) credit hours of ENVR 5000: Thesis. Similar to a thesis, the student will present a research proposal to their Advisory Committee and **submit a signed [Report Proposal Form](#)** to the ESGP Coordinator to place in the student's file. The student also defends the final Report findings and conclusions to their committee in an oral presentation. Following this presentation, the [Formal Report Approval Form](#) is submitted to **both** the ESGP Coordinator and the Graduate College.

The Formal Report is a written document that provides an analysis to address an environmental problem. The student is expected to demonstrate ability to apply environmental science principles in an actual decision-making situation in a manner that is satisfactory to the student's graduate committee. In addition, the research must reflect the interdisciplinary nature of the program by addressing an environmental problem from multiple perspectives, which may include a social and/or economic perspective.

The Formal Report must be written as a professional document, using concise and precise vocabulary, correct spelling and grammar, and the third person narrative voice. If the student is not comfortable with professional writing, s/he should seek editorial advice, such as from the OSU Writing Center. Style should follow American Psychological Association (APA, 6th edition); anticipated length is 20-30 pages, excluding appendices.

Organization & Content of the Report

Executive Summary

A brief summary (no more than one page) of the report organization, problem addressed, solution selected, and assessment of solution success.

Acknowledgments

Thank you to those who helped the author.

Table of Contents

List of Tables (if applicable)

List of Figures (if applicable)

Chapter 1: Description of the Environmental Problem

- Explain the reason for the report.
- Define the environmental problem that was solved by this report.
- State the importance of the problem and explain why solving this problem is important to the organization and to the larger community.
- List the objectives of the report.
- Describe the general approach used in solving the problem.
- Explain the major outcomes to be achieved.

Chapter 2: Description of the Report Arrangement, Methodologies, and Tasks

- Describe the data collection and analysis methodologies that were used in analyzing the problem, identifying and screening potential solutions, evaluating solution candidates, selecting the best solution, and implementing the solution.

- Describe the tasks performed during the report, with associated timelines.

Chapter 3: Presentation and Discussion of the Solution to the Problem

- This chapter is the most important part of the report; care should be taken to develop an articulate and convincing discussion.
- The presentation of results includes the products of the investigation, analysis, evaluation, or other methods used to solve the problem.
- The text may be augmented with various graphics, including tables, charts, graphs, drawings, photographs, plans, protocols, computer software, etc. The student should consult their research advisor on the level of detail that should be included.
- Findings and Conclusions: Findings are discussions that interpret the results and apply them to solving the problem; conclusions are the student's discussion about whether the problem was in fact solved. This section should defend and justify the solution selected and include an assessment of the solution's success.

Appendices

- Manuals, procedures, etc.

NOTES

Handbook Receipt & Acknowledgement

The Student Handbook contains important information about the Environmental Science Graduate Program (ESGP). Please read the handbook in its entirety before signing below. Retain a copy for your records and submit a signed copy of this page to the ESGP Program Coordinator.

By signing below, I acknowledge that:

- I am aware that the ESGP Student Handbook is available online and hereby accept responsibility for reviewing its contents.
- I understand that the policies and procedures contained in the ESGP Student Handbook will be used during my program of study and that failure to follow the regulations contained in the Handbook may result in consequences.
- I agree to consult with ESGP Program Staff for clarification if I have questions or concerns about the content of Student Handbook.
- I understand that the ESGP Student Handbook is a supplement to other official policies and procedures of Oklahoma State University, including those published by the Registrar's Office and the Graduate College.
- I understand that the ESGP Student Handbook is offered as a guide to departmental policies, not a contract or implied contract, and that the contents of the Student Handbook may change at any time.

Student Signature

Date

Printed Name