

# **Environmental and Conservation Sciences Graduate Student Handbook**

**Environmental and Conservation Sciences Graduate Program  
College of Graduate and Interdisciplinary Studies  
North Dakota State University Fargo, ND 58108-6050**

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## **OVERVIEW**

### ***Mission and Values***

The mission of the Environmental and Conservation Sciences (ECS) graduate program, North Dakota State University (NDSU) is to produce high quality graduates through an inclusive, respectful, caring and nurturing environment, and interdisciplinary research. The program serves as a platform for faculty from different disciplines to collaborate on research and education broadly on environmental and conservation issues. Research conducted in the program frequently involves environmental and conservation problems in the State of North Dakota which is aligned with NDSU as a land grant university. The program rests on an integrative curriculum and a multidisciplinary team approach. The program emphasizes the common ground shared by all sciences, and seeks to bridge methodological and philosophical boundaries that might hinder interdisciplinary communication and cooperation.

ECS strives to promote an equitable, diverse, and inclusive environment.

### ***Participating Colleges and Departments***

The ECS program was established in 2003-2004 and is participated by 4 colleges and their departments.

1. College of Agriculture, Food Systems, and Natural Resources: Agribusiness and Applied Economics, Veterinary and Microbiological Sciences
2. College of Arts, Humanities, and Social Sciences
3. College of Engineering: Agricultural and Biosystems Engineering, Civil and Environmental Engineering
4. College of Science and Mathematics: Biological Sciences, Geosciences

### ***Degrees and Study Tracks***

ECS M.S. and Ph.D. programs follow one of three tracks:

1. Environmental Science: This track focuses on abiotic issues to better predict anthropogenic environmental impacts (e.g., climate change, hazardous waste, water, air, and land pollution)
2. Conservation Biology: This track focuses on biotic issues while considering the human element in its approach to resource issues (e.g., biodiversity, landscape ecology, sustainable development, conflict resolution)
3. Environmental Social Sciences: This track focuses on interactions and relationships between humans and the natural environment (e.g., environmental policy, economics, history, and sociology, sustainable development)

## **POLICIES AND PROCEDURES**

### ***Admission and Funding/Assistantships***

To be admitted to the Environmental and Conservation Sciences program the applicant must meet the following:

1. Meet the Graduate School requirements of holding a bachelor's degree from an accredited institution and have earned a cumulative grade point average of at least 3.0 or equivalent
2. Be admitted into an ECS faculty member's lab who will make arrangements for stipend and research funding. Thus, applicants should only contact faculty members who share their research interests. Search our faculty research interests here. (Note: Faculty may consider admitting students who apply through sponsored programs such as the Fulbright Program or the US-Pakistan Knowledge Corridor Ph.D. Scholarship Program. Students who are funded through such programs should indicate their sponsored affiliation when communicating with ECS faculty members.)
3. Have adequate preparation in the desired area of study and the potential to undertake advanced study and research as evidenced by academic performance and experience.

Official transcripts of all previous undergraduate and graduate records will be evaluated by the Graduate School before the application is complete including three reference letters. Personal reference report forms are included in the online application process.

Domestic and permanent resident applicants need to apply at least one month prior to the desired starting fall or spring semester. The application deadline for international applicants is May 1st for fall and August 1st for spring, per the Graduate School.

### ***Major Advisor and Supervisory Committee***

Based on the admission policies above, the student will have a major/academic advisor upon entering the program. By the end of the second semester, the student and academic advisor will arrange for the appointment of a Graduate Supervisory Committee.

For M.S. students, the Graduate Supervisory Committee will consist of at least three members of the NDSU graduate faculty and will include the student's adviser, an ECS faculty member and an ECS affiliated faculty from outside the student's home college, who is designated as an appointee of the Graduate School. The plan of study will be prepared by the student, in consultation with the major adviser, by the end of the first year in residence.

For Ph.D. students, the Graduate Supervisory Committee will consist of at least four members of the NDSU graduate faculty. The committee must include the student's adviser and three additional ECS affiliated faculty members. One of these three committee member must be from outside the student's home college, and this person also is designated as an appointee of the Graduate School.

### ***ECS Policy on Student Defense/Committee Meetings***

Students will present their research proposal and plan of study to their committee for approval during

the first year of their program for M.S. students and within the first two years for Ph.D. students. The proposal will be circulated to committee members **at least two weeks prior to the committee meeting**, and only after the student's advisor has provided his/her approval. Students should ask each committee member if s/he prefers a hard copy or a pdf of the proposal. Similarly, the dissertation/thesis will be shared with committee members at least two weeks prior to the committee meeting, and only after the student's advisor has provided his/her approval. This requirement recognizes that faculty members in other departments may need additional time to review the dissertation. Committee meetings including defenses will be scheduled during the academic year (August 16 – May 15), as many ECS affiliated faculty are on 9 month appointments.

### ***Program Structure and Administration***

The ECS program is administered by the ECS Program Director and Steering Committee. The Steering Committee is composed of faculty members from participating colleges and a student member associated with the ECS Graduate Student Association. The ECS Program Director presides over ECS Steering Committee meetings. The office of the Program Director serves as the home office of the program.

The ECS program is not a department and therefore does not have permanent faculty and facilities. The admitted student is a student in the ECS program but is housed in the home department of his/her/their major advisor.

### ***Curriculum and Degree Requirements***

The curriculum and specific degree requirements can be found here [https://www.ndsu.edu/fileadmin/ecs/Files/20\\_Curriculum.pdf](https://www.ndsu.edu/fileadmin/ecs/Files/20_Curriculum.pdf).

Core program requirements include:

- Plan of study
- Graduate supervisory committee
- 20-25 minute Greenbag proposal presentation
- Weekly Greenbag seminar attendance
- Research relevant track and cross-disciplinary courses
- UNIV 720 Scientific Integrity (1 credit)
- ECS 790 ECS Seminar (1 credit)
- 45-50 minute Greenbag thesis/dissertation presentation
- Comprehensive examinations (doctoral students only)
- Written thesis/dissertation and oral defense (see Graduate School for details)
- 3 minute dissertation video (doctoral students only, see Graduate School for details)

### ***Research Integrity***

ECS students are expected to be in compliance with NDSU Policy 348 on responsible conduct of research (<https://www.ndsu.edu/fileadmin/policy/348.pdf>). The ECS curriculum requires completion of a scientific integrity/ethics for both M.S. and Ph.D. students. This course is typically offered as UNIV 720 Scientific Integrity, but may be substituted with BIOL 790 Responsible Conduct for Research. The students are strongly encouraged to take the course in the first or second semester of their study. In addition, several events and resources on campus related to responsible conduct of research, such

trainings/workshops organized by the Office of Research Creative Activities, and Blackboard System are available

### ***Seminar Requirements***

All ECS students are required to attend a weekly Green Bag Seminar series organized by the program, and to give two seminar presentations. The first presentation is a short presentation (20 to 25 minutes) and is given at an initial stage of thesis/dissertation research, preferably in the first year for M.S. students and the second year for Ph.D. students. The second presentation is a full presentation (40 to 45 minutes) and is given at the last stage of thesis/dissertation research, normally in the semester that the student plans to graduate. In addition to the Green Bag Seminar series, ECS students are required to attend seminars in their home departments.

There is no course credit associated with the first presentation. The student must register for 1 credit of ECS 790 Graduate Seminar for the semester that the full presentation is given.

## **RESOURCES AND SUPPORT**

### ***Website***

The program website is available at <https://www.ndsu.edu/ecs/>. It contains general and specific information about the program as well as events, news, and social media. The website also lists current faculty in the program.

### ***Professional Development***

ECS usually sponsors one professional development workshop per academic year for the students and a career/job search panel. The topic of the workshop is proposed by the students and decided based on benefits and impact to the students at large.

### ***Travel Support***

The program has limited funding to partially support the students to conferences and technical meetings. To request this support, the students should write a request letter/e-mail to the Program Director and provide the following information:

- Conference name, location, and date(s)
- Abstract acceptance letter/e-mail from the organization
- Estimated budget (Registration, transportation, and accommodation expenses)
- Other potential sources of support and amount

### ***Graduate Student Association***

The ECS Graduate Student Association (ECSGSA) is a student organization associated with the program. ECSGSA hosts several social, fundraising, volunteer, and technical events. It is an active organization and represents ECS students in different events and activities. The annual membership fee for the organization is \$5, which provides the ECSGSA the ability to sponsor events for students. More information on the ECSGSA can be found on the program website.

### ***Student Ambassadors***

The ECS Ambassadors are a group of ECS graduate students that help the program in recruiting prospective graduate students. Typically, ECS Ambassadors are partially supported through the ECS program due to recruiting plans submitted by their Advisor. Their activities include but are not limited to hosting campus visits (providing campus and laboratory tours) and visiting local universities for recruiting events/fairs. The information on current ECS Ambassadors is on the program website. ECS students interested in joining the ECS Ambassadors should contact the Program Director.

### **CONTACT INFORMATION**

For additional information and questions, please contact:

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