# Table of Contents

OVERVIEW ................................................................................................................................... 2
  Program Mission and Philosophy .......................................................................................... 2
  Participating Colleges and Departments ........................................................................... 2
  Degrees and Study Tracks ................................................................................................. 2

POLICIES AND PROCEDURES ......................................................................................................... 3
  Admission and Funding/Assistantships .............................................................................. 3
  Major Adviser and Supervisory Committee ....................................................................... 3
  Program Structure and Administration .............................................................................. 4
  Curriculum, and Degree and Thesis/Dissertation Requirements ...................................... 4
  Seimar Requirement ........................................................................................................... 4
  Resources and Support ...................................................................................................... 5

PARTICIPATING FACULTY ........................................................................................................... 6
OVERVIEW

Program Mission and Philosophy

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.

Participating Colleges and Departments

The ECS program was established in 2003-2004 and is participated by 4 colleges: Agriculture, Food Systems, and Natural Resources; Arts, Humanities, and Social Sciences; Engineering; and Science and Mathematics. Several departments under these colleges are involved in the program with Agribusiness and Applied Economics, Agricultural and Biosystems Engineering, Biological Sciences, Civil and Environmental Engineering, Geosciences, and Veterinary and Microbiological Sciences being major participants.

Degrees and Study Tracks

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

1. Environmental Science, focusing on abiotic environmental issues, such as water, air, and land pollution.
2. Conservation Biology, focusing on biotic issues, such as the preservation of biodiversity and ecosystem function.
3. Environmental Social Sciences, emphasizing relationships between humans and the natural environment, such as cultural and behavioral issues, policy, business and economics, and sustainable development.

Environmental Science

Areas of Environmental Science, such as climate change, groundwater, hazardous waste, and water chemistry, require broad training across discipline lines for successful application. To better predict anthropogenic environmental impacts, the engineering, earth material, chemical, and biological data must be considered in an integrated manner.

Conservation Biology

Conservation Biology offers a new philosophy of looking at complex problems. This discipline focuses on the loss of regional and global biodiversity, but also considers the
human element in its approach to resource issues. As an example, landscape ecology, sustainable development, and conflict resolution are themes promoted by the field of Conservation Biology.

Environmental Social Sciences
Environmental Social Sciences discipline looks at interactions between humans and the environment which tend to be complex and often require interdisciplinary efforts to understand and manage. Environmental policy, environmental economics, environmental history, environmental communication, environmental sociology, and human ecology are examples of the fields of study.

POLICIES AND PROCEDURES

Admission and Funding/Assistantships

To be admitted to the ECS program, the applicant must meet the Graduate School requirements (https://bulletin.ndsu.edu/graduate/admission-information/). The English proficiency minimum requirements are a TOEFL ibT of 79 or an IELTS of 6.5. The application deadline for international applications is May 1 for fall semester and August 1 for spring semester. Domestic applicants should apply at least one month prior to the start of classes.

Basic application, admission, and financial support information and policies for the ECS program are as follows.

1. Only students with advisers and guaranteed funding will be admitted.
2. Applications are reviewed by an interdisciplinary faculty committee based on credentials such as grade point average, English proficiency scores (if applicable), recommendation letters, research experiences and statement of interests/purpose.
3. The best way to get funded is to contact ECS faculty whose research expertise matches students’ interests. A list of ECS faculty is available at: https://www.ndsu.edu/ecs/index.php/people/faculty. NDSU faculty who are not on this list, may also serve as an adviser.

Applications will not be evaluated until there is a commitment from an ECS/NDSU faculty to serve as an adviser and financial support is secured.

Major Advisor and Supervisory Committee

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

For Ph.D. study, the Graduate Supervisory Committee will consist of at least four members of the NDSU graduate faculty. The committee must include the student’s adviser, two additional ECS faculty members, and an appointee of the Graduate School.
One committee member must be from outside the student’s home department. The plan of study will be prepared by the student, in consultation with the major adviser, by the end of the third semester (not including summer) in residence.

For M.S. study, 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 a faculty from outside the student’s home department. 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.

ECS graduate students will present their research proposal and plan of study to their graduate advisory committees 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 thesis defense, and only after the student’s advisor has provided his/her approval. This requirement recognizes that faculty members need sufficient time to properly review the dissertation/thesis. Students should ask each committee member if s/he prefers a hard copy or a pdf of the dissertation/thesis. Committee meetings including defenses will be scheduled during the academic year (August 16 – May 15), as many faculty are on 9-month appointments.

**Program Structure and Administration**

The ECS program is administered by the ECS Director and Steering Committee. The Steering Committee is composed of at least four faculty members from four participating colleges. The Steering Committee membership is based on nomination and confirmation by the Director and existing Steering Committee members. The committee also includes a student member which is nominated annually by the ECS Graduate Student Association. The ECS Program Director presides over ECS Steering Committee meetings.

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 major adviser. The office of the Director serves as the office of the program.

**Curriculum, and Degree and Thesis/Dissertation Requirements**

The information on curriculum, and degree and thesis/dissertation requirements is available on the program website [https://www.ndsu.edu/ecs/index.php/future-students/courses](https://www.ndsu.edu/ecs/index.php/future-students/courses). All Ph.D. students in the program are required to complete preliminary/comprehensive examination(s). The student, major adviser, and supervisory
committee mutually decide on the format and content for the examination(s). The program has no specific preliminary/comprehensive examination requirements.

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 second semester for M.S. students and the third semester for Ph.D. students. There is no course credit associated with this first presentation. 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. The student must register for 1 credit of ECS 790 Graduate Seminar for the semester that the full presentation is given. In addition to the Green Bag Seminar series, ECS students are required to attend seminars in their home departments.

Resources and Support

Website
The program website is available at http://www.ndsu.edu/ecs. It contains general and specific information about the program as well as announcements, events and news. The website also lists current students in the program. To be listed, the student should contact the Program Director and provide his/her information (similar to that posted on the website for other students).

Professional Development Events
The program usually sponsors one professional development workshop per 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. NDSU Graduate School also hosts several workshops and trainings annually for graduate students.

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 UNIV 720 Scientific Integrity course for both M.S. and Ph.D. students. 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 Office of Research Creative Activities, and Blackboard System are available.

Travel Support
The program has limited funding to partially support the students to conferences and technical meetings. To request for the support, the students should write a request letter/e-mail to the Program Director and provide the following information.
• Conference name, location, and date
• Abstract acceptance letter/e-mail from the conference
• Estimated budget (Registration, transportation, and accommodation expenses)
• Potential sources of support and amount

Student Organization and Group
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 $10. More information on ECSGSA can be found on the program website and their Facebook page: https://www.facebook.com/ecsgsassoc.

ECS Ambassadors
ECS Ambassador Fellows have received stipend support via ECS recruiting grants awarded to their graduate advisors. The Ambassadors are responsible for assisting with ECS Recruiting activities. Their activities include but not limited to hosting campus visits by prospective students (providing campus and laboratory tours) and visiting local universities for recruiting events/fairs. The information on current ECS Ambassadors is on the program website.

Contact
For additional information and questions regarding the program, please contact:

Craig Stockwell
Program Director
Department of Biological Sciences
Office: Stevens 119
Phone: 701-231-8449
craig.stockwell@ndsu.edu

Robin Cummings Pas
Academic Support Specialist
College of Graduate and Interdisciplinary Studies
Office: Putnam 106
Phone: 701-231-8547
robin.groberg@ndsu.edu

Participating Faculty
The following list of faculty is based on their interests and interactions with the ECS program is provided at https://www.ndsu.edu/ecs/index.php/people/faculty.