

# Doctor of Philosophy in Environmental Science: Large River Ecosystems



*The Ph.D. in Environmental Science: Large River Ecosystems is an interdisciplinary program that will provide student-scientists from a variety of physical, life, and/or mathematical science disciplines with the opportunity to extend their knowledge of large river ecosystems while studying in the heart of the upper Mississippi River basin. Students who complete the program will*

- have the skills to create new knowledge based on fundamental research.
- be critical thinkers with the skills necessary to develop and manage complex solutions to open-ended challenges.
- become recognized for their distinctive academic training and sought after for positions of responsible charge in academic, government, and private sector employment.

## Admission Requirements

General requirements for admission to the Environmental Science: Large River Ecosystems doctoral program include the following:

- An earned thesis-based master's degree in a physical, life, or mathematical science from an accredited institution
- An official application to the School of Graduate Studies
- Graduate Record Exam (GRE<sup>®</sup>) General Test
- Test of English as a Foreign Language (TOEFL<sup>®</sup>) if required by WIU's Center for International Studies
- Three letters of reference
- Statement of research interest
- A curriculum vitae

For additional information regarding admission requirements, please visit [wiu.edu/cas/ies/esphd.php](http://wiu.edu/cas/ies/esphd.php). To apply to the program, please see [wiu.edu/graduate\\_studies/prospective\\_students/classification.php](http://wiu.edu/graduate_studies/prospective_students/classification.php).

## Program of Study

Ph.D. students must complete at least 60 semester hours (SH) beyond the master's degree in the following areas:

- Core courses – 14 SH
- Electives – at least 16 SH
- Dissertation/Research – 30 SH

A sequence of core courses is used to provide common ground among this diverse student population. Through the core courses, students will

- develop a theoretical framework for the study of the interrelatedness and interaction within and between environmental compartments.

- develop and apply advanced methods to the quantitative analysis of environmental science data (including statistics, mathematical modeling, and geospatial analysis and simulation).
- integrate principles in ways that permit informed environmental decision-making.

To account for the broad range of student technical preparation, personal interests, and possible dissertation research topics, inherent flexibility is provided through electives (at least 16 SH) which are selected by the student and his or her major advisor to meet the unique learning needs of individual students.

As a research-based terminal degree, the program curriculum is weighted to emphasize the conduct of independent, novel scientific investigation under the close supervision of a faculty advisor and committee (Dissertation/Research, 30 SH).

To proceed in the program, students must demonstrate the high level of understanding needed to pass a Ph.D. qualifying examination, which is drawn from the content of the core courses. Students must also successfully pass a preliminary examination in which a comprehensive dissertation plan is presented and defended. To graduate, students must submit a written dissertation based on their independent research. Students must also defend their dissertations in a presentation that is open to the public.

**Program Location:**  
Quad Cities

## Contact Information

### Questions about the program:

Director of the Institute for Environmental Studies  
Tillman Hall 301, Macomb campus  
(309) 298-1632  
[wiu.edu/ies](http://wiu.edu/ies)  
[ies@wiu.edu](mailto:ies@wiu.edu)

### General admission questions:

School of Graduate Studies  
(309) 298-1806 or (877) WIU GRAD  
[Grad-Office@wiu.edu](mailto:Grad-Office@wiu.edu)  
[wiu.edu/grad](http://wiu.edu/grad)



**Western Illinois  
University**

QUAD CITIES

**Faculty**

The program draws on faculty from across academic disciplines, including professors from the Departments of Biological Sciences, Geography, and Geology, among others.

**Program Logistics**

Coursework for the Ph.D. in Environmental Science is offered at WIU-Quad Cities. Student research is supported by new laboratory facilities at the QC campus as well as through resources at the Macomb campus and the Alice L. Kibbe Life Science Station in Warsaw, Illinois.



# Our Capabilities

