

# APPLIED GEOLOGY - PH.D.

College of Sciences and Humanities  
Department of Earth Science  
www.kent.edu/earth-sciences

## About This Program

Advance your expertise with solving real-world environmental and geological challenges through rigorous research, fieldwork and cutting-edge analysis. This Ph.D. degree prepares you to design and lead independent scientific investigations while building deep knowledge across applied earth sciences. With a strong focus on practical impact and interdisciplinary discovery, you will be equipped for influential careers in academia, industry and government. Read more...

## Contact Information

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• Connect with an Admissions Counselor

## Program Delivery

- **Delivery:**
  - In person
- **Location:**
  - Kent Campus

## Examples of Possible Careers and Salaries\*

### Atmospheric, earth, marine, and space sciences teachers, postsecondary

- 2.6% slower than the average
- 14,000 number of jobs
- \$101,390 potential earnings

### Geoscientists, except hydrologists and geographers

- 3.2% about as fast as the average
- 25,100 number of jobs
- \$99,240 potential earnings

### Hydrologists

- -0.1% little or no change
- 6,300 number of jobs
- \$92,060 potential earnings

### Natural sciences managers

- 3.7% about as fast as the average
- 104,300 number of jobs
- \$161,180 potential earnings

\* Source of occupation titles and labor data comes from the U.S. Bureau of Labor Statistics' Occupational Outlook Handbook. Data comprises projected percent change in employment over the next 10 years; nation-wide employment numbers; and the yearly median wage at

which half of the workers in the occupation earned more than that amount and half earned less.

For more information about graduate admissions, visit the graduate admission website. For more information on international admissions, visit the international admission website.

## Admission Requirements

- Bachelor's degree from an accredited college
- Minimum 2.750 undergraduate GPA on a 4.000-point scale
- Official transcript(s)
- Goal statement
- Three letters of recommendation
- English language proficiency - all international students must provide proof of English language proficiency (unless they meet specific exceptions to waive) by earning one of the following:<sup>1</sup>
  - Minimum 79 TOEFL iBT score
  - Minimum 6.5 IELTS score
  - Minimum 58 PTE score
  - Minimum 110 DET score

<sup>1</sup> International applicants who do not meet the above test scores may be considered for conditional admission.

## Application Deadlines

- **Fall Semester**
    - Priority deadline: January 15
- All application materials (including applicable fee, transcripts, recommendation letters, etc.) submitted by this deadline will receive the strongest consideration for admission.*

## Program Requirements

### Major Requirements

Code	Title	Credit Hours
<b>Major Requirements</b>		
ESCI 70084	GEOLOGY GRADUATE STUDENT ORIENTATION	1
ESCI 80086	FIELD METHODS IN THE EARTH SCIENCES	1
ESCI 80291	SEMINAR: WRITING IN THE EARTH SCIENCES	1
ESCI 80591	SEMINAR: DATA ANALYSIS AND PRESENTATION	1
Earth Sciences (ESCI) Doctoral Level Electives (70000 or 80000 level) <sup>1</sup>		26-56
<i>Culminating Requirement</i>		
ESCI 80199	DISSERTATION I <sup>2</sup>	30
<b>Minimum Total Credit Hours for Post-Baccalaureate Students</b>		<b>90</b>
<b>Minimum Total Credit Hours for Post-Master's Students</b>		<b>60</b>

<sup>1</sup> Non-Earth Science courses may be applied with advisor approval.

<sup>2</sup> Each doctoral candidate, upon admission to candidacy, must register for ESCI 80199 for a total of 30 credit hours. It is expected that a doctoral candidate will continuously register for Dissertation I, and thereafter ESCI 80299, each semester, until all requirements for the degree have been met.

## Graduation Requirements

Minimum Major GPA	Minimum Overall GPA
-	3.000

- All students will have a fundamental knowledge and understanding of earth materials by the end of the second year in the program. This will be fulfilled by a lecture and lab course in Earth materials or an equivalent course related to mineralogy and/or petrology as determined by the graduate coordinator.

### Candidacy

To be admitted to candidacy for the doctoral degree, a student must pass comprehensive written and oral examinations prior to the start of the fifth semester after admission to the doctoral program. The comprehensive examinations focus on mastery of the student's major area of concentration and one minor area, as well as the fundamentals of geology and its allied sciences as appropriate to the student's proposed dissertation topic. Students who fail the comprehensive examinations may be allowed to repeat them once; this must be completed more than one month after the initial examination, but less than six months thereafter.

### Residency

All students admitted to the doctoral program must complete two successive semesters of full-time graduate study at Kent State University. During this time they must obtain a minimum of 22 credit hours.

## Program Learning Outcomes

Graduates of this program will be able to:

1. Show in-depth comprehension of several areas, including both basic and applied aspects of geology/earth sciences.
2. Demonstrate the ability to formulate testable scientific hypotheses and carry out independent research using appropriate field, experimental, analytical and/or computational methods.
3. Describe, synthesize and interpret the results of a scientific investigation and understand its broader applications.

## Full Description

The Ph.D. degree in Applied Geology prepares students for careers in industry and academic institutions where research into the application of geological principles focuses on solutions to basic and applied research questions. Focus areas include environmental research (water, surface and subsurface processes; geohazards; and natural resources), as well as evolution of earth's systems research (climate change, paleoecology and evolution, crustal processes).