

GEOSCIENCE, PHD

The Department of Geoscience provides opportunity for advanced study leading to the master of science and the doctor of philosophy degrees. Broad research interests and numerous fields of specialization among the members of the faculty provide research opportunities in all major fields of earth science including geochemistry, geophysics, hydrogeology, microbial geoscience, mineralogy, nano-geoscience, paleontology, paleoclimatology/paleoceanography, petrology, quaternary geology, sedimentology, structural geology, and tectonics.

The graduate student is expected to acquire a broad foundation in geoscience and in the supporting sciences before specializing. Courses are selected by the student in consultation with a three-member guidance and evaluation committee. Individual research and scholarship is required in all graduate work. It is expected that the candidate for an advanced degree will make original contributions, develop new ideas, and complete a dissertation suitable for publication in a peer-reviewed journal, book, or report. Students may also obtain a joint master's degree in geoscience and water resources management if approved by both programs and the Graduate School.

The department maintains a variety of cutting-edge laboratories in Lewis G. Weeks Hall for the Geological Sciences. Strong connections also exist between the geoscience and geological engineering programs. Library and research facilities are available for advanced work in all important branches of the science. Geological survey offices in the Madison area, both state and federal, provide opportunities for cooperation with Survey geologists and the use of Survey facilities.

The program prepares students for teaching and research in academic positions, research work in state and federal organizations, and research and development in industry. The department coordinates interviews with potential employers several times during the year and maintains information on career placement. Students are actively involved in teaching and research programs and other scholarly activities of the department.

ADMISSIONS

ADMISSIONS

Please consult the table below for key information about this degree program's admissions requirements. The program may have more detailed admissions requirements, which can be found below the table or on the program's website.

Graduate admissions is a two-step process between academic programs and the Graduate School. **Applicants must meet the minimum requirements (<https://grad.wisc.edu/apply/requirements/>) of the Graduate School as well as the program(s).** Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/apply/>).

Requirements	Detail
Fall Deadline	January 4
Spring Deadline	The program does not admit in the spring.
Summer Deadline	The program does not admit in the summer.

GRE (Graduate Record Examinations)	Not required.
English Proficiency Test	Every applicant whose native language is not English, or whose undergraduate instruction was not exclusively in English, must provide an English proficiency test score earned within two years of the anticipated term of enrollment. Refer to the Graduate School: Minimum Requirements for Admission policy: https://policy.wisc.edu/library/UW-1241 (https://policy.wisc.edu/library/UW-1241/).
Other Test(s) (e.g., GMAT, MCAT)	n/a
Letters of Recommendation Required	3

Graduate students may enter the degree program with a bachelor's degree in geology or a related earth science, or some other field relevant to the intended field of specialization. In addition to meeting the minimum admission requirements of the Graduate School, candidates must have had one year each of college chemistry, physics, and calculus. Graduate students in paleobiology are allowed to substitute statistics courses for the calculus requirement. A student entering the program with an undergraduate degree in geology is expected to have completed a 6–8 credit course in geologic field mapping.

Applicants will not normally be admitted with deficiencies in more than two one-semester courses in the required cognate subjects (for example, a prospective student could be missing one semester of physics and one semester of calculus). Such deficiencies should be removed within the first year of graduate study. A deficiency in field geology normally must be removed before commencing graduate study. Promising students with excessive deficiencies may be advised to take courses as a University Special student before becoming eligible to enter graduate studies. They cannot, however, receive financial aid while a University Special student.

Applicants seeking admissions in spring and summer must contact the program.

FUNDING

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding/>) is available from the Graduate School. Be sure to check with your program for individual policies and restrictions related to funding.

PROGRAM RESOURCES

Financial assistance sufficient to meet the ordinary expenses of graduate school is available to qualified students in the form of fellowships and teaching or research assistantships. Prospective students should contact the department for information on available financial aid.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (<http://guide.wisc.edu/graduate/#policiesandrequirements>), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Accelerated: Accelerated programs are offered at a fast pace that condenses the time to completion. Students typically take enough credits aimed at completing the program in a year or two.

Evening/Weekend: Courses meet on the UW–Madison campus only in evenings and/or on weekends to accommodate typical business schedules. Students have the advantages of face-to-face courses with the flexibility to keep work and other life commitments.

Face-to-Face: Courses typically meet during weekdays on the UW–Madison Campus.

Hybrid: These programs combine face-to-face and online learning formats. Contact the program for more specific information.

Online: These programs are offered 100% online. Some programs may require an on-campus orientation or residency experience, but the courses will be facilitated in an online format.

CURRICULAR REQUIREMENTS

Requirement	Detail
Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	26 credits must be graduate-level coursework. Refer to the Graduate School: Minimum Graduate Coursework (50%) Requirement policy: https://policy.wisc.edu/library/UW-1244 (https://policy.wisc.edu/library/UW-1244/).
Overall Graduate GPA Requirement	3.00 GPA required. Refer to the Graduate School: Grade Point Average (GPA) Requirement policy: https://policy.wisc.edu/library/UW-1203 (https://policy.wisc.edu/library/UW-1203/).
Other Grade Requirements	n/a

Assessments and Examinations Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.

Language Requirements No language requirements.

Graduate School Breadth Requirement All doctoral students are required to complete a doctoral minor or graduate/professional certificate. Refer to the Graduate School: Breadth Requirement in Doctoral Training policy: <https://policy.wisc.edu/library/UW-1200> (<https://policy.wisc.edu/library/UW-1200/>).

REQUIRED COURSES

Courses are selected by the student in consultation with a three-member Guidance and Evaluation Committee.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy/>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

PRIOR COURSEWORK

Graduate Credits Earned at Other Institutions

With program approval, students are allowed to transfer no more than 15 credits of graduate coursework from other institutions. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

Undergraduate Credits Earned at Other Institutions or UW–Madison

Refer to the Graduate School: Transfer Credits for Prior Coursework (<https://policy.wisc.edu/library/UW-1216/>) policy.

Credits Earned as a Professional Student at UW–Madison (Law, Medicine, Pharmacy, and Veterinary careers)

Refer to the Graduate School: Transfer Credits for Prior Coursework (<https://policy.wisc.edu/library/UW-1216/>) policy.

Credits Earned as a University Special Student at UW–Madison

Refer to the Graduate School: Transfer Credits for Prior Coursework (<https://policy.wisc.edu/library/UW-1216/>) policy.

PROBATION

Refer to the Graduate School: Probation (<https://policy.wisc.edu/library/UW-1217/>) policy.

ADVISOR / COMMITTEE

Refer to the Graduate School: Advisor (<https://policy.wisc.edu/library/UW-1232/>) and Graduate School: Committees (Doctoral/Master's/MFA) (<https://policy.wisc.edu/library/UW-1201/>) policies.

CREDITS PER TERM ALLOWED

15 credits

TIME LIMITS

Refer to the Graduate School: Time Limits (<https://policy.wisc.edu/library/UW-1221/>) policy.

GRIEVANCES AND APPEALS

These resources may be helpful in addressing your concerns:

- Bias or Hate Reporting (<https://doso.students.wisc.edu/bias-or-hate-reporting/>)
- Graduate Assistantship Policies and Procedures (<https://hr.wisc.edu/policies/gapp/#grievance-procedure>)
- Hostile and Intimidating Behavior Policies and Procedures (<https://hr.wisc.edu/hib/>)
 - Office of the Provost for Faculty and Staff Affairs (<https://facstaff.provost.wisc.edu/>)
- Employee Assistance (<http://www.eao.wisc.edu/>) (for personal counseling and workplace consultation around communication and conflict involving graduate assistants and other employees, post-doctoral students, faculty and staff)
- Employee Disability Resource Office (<https://employee disabilities.wisc.edu/>) (for qualified employees or applicants with disabilities to have equal employment opportunities)
- Graduate School (<https://grad.wisc.edu/>) (for informal advice at any level of review and for official appeals of program/departmental or school/college grievance decisions)
- Office of Compliance (<https://compliance.wisc.edu/>) (for class harassment and discrimination, including sexual harassment and sexual violence)
- Office Student Assistance and Support (OSAS) (<https://osas.wisc.edu/>) (for all students to seek grievance assistance and support)
- Office of Student Conduct and Community Standards (<https://conduct.students.wisc.edu/>) (for conflicts involving students)
- Ombuds Office for Faculty and Staff (<http://www.ombuds.wisc.edu/>) (for employed graduate students and post-docs, as well as faculty and staff)
- Title IX (<https://compliance.wisc.edu/titleix/>) (for concerns about discrimination)

Students should contact the department chair or program director with questions about grievances. They may also contact the L&S Academic Divisional Associate Deans, the L&S Associate Dean for Teaching and Learning Administration, or the L&S Director of Human Resources.

OTHER

Qualified prospective students are considered for financial support in the form of graduate assistantships or fellowships at the same time they are considered for admission.

PROFESSIONAL DEVELOPMENT

PROFESSIONAL DEVELOPMENT GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd/>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

LEARNING OUTCOMES

1. Formulates and plans original research.
2. Formulates scientific hypotheses, ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within geoscience.
3. Creates research and scholarship that makes a substantive contribution.
4. Demonstrates breadth within their learning experiences, gaining a broad awareness of the status of contemporary research beyond the student's area of specialization.
5. Advances contributions of geoscience to society.
6. Communicates complex ideas in a clear and understandable manner, including the ability to engage and communicate with research professionals in geoscience.
7. Fosters ethical and professional conduct.

PEOPLE

PEOPLE

FACULTY:

Professors Dutton, Feigl, Goodwin, Kelly, Meyers, Peters, Roden, Singer, Tikoff, Xu;
Associate Professors Cardiff, Ferrier, Marcott, Zoet;
Assistant Professors Bauer, Bonamici, Golos, Haseloff, Marroquin, Zahasky