Geology
Master of Science

The Geology Graduate Program provides instruction and research opportunities for graduate students in the geological sciences, maintains and develops geological research at UND, and serves the community, state, and region.

Goal 1: Graduate students will be able to communicate effectively in writing and through oral presentation.
Goal 2: Graduates of our program shall be employable in Earth science professions.
Goal 3: Graduate students shall be proficient in recently developed computational, laboratory, and field technology, and instrumentation.
Goal 4: Graduate students shall be up-to-date concerning current trends in the geological sciences.
Goal 5: Graduate students shall have a broad knowledge of geology.
Goal 6: Graduate students shall do well in their coursework, demonstrating acquisition of knowledge and skills in the Earth sciences.
Goal 7: Graduate students shall have advanced and in-depth training in their chosen field.
Goal 8: The faculty who teach and advise geology graduate students shall be actively engaged in research and serve as excellent role models.

Admission Requirements

The applicant must meet the School of Graduate Studies’ current minimum general admission requirement as published in the graduate catalog.

1. For admission to the geology M.S. program, applicants must hold a bachelor’s degree in geology from an accredited college or university or otherwise demonstrate sufficient course work, training, or experience in geoscience.
2. For “approved” status, students must have completed a 5-6 credit hour geology field course, along with satisfactory achievement in supporting science and mathematics, as determined by the department graduate admissions committee.
3. For all graduate programs in the Harold Hamm School of Geology and Geological Engineering, a cumulative 3.0 or higher grade point average is required.
4. Submission of a Graduate Record Examination (GRE) general test score is strongly recommended if you do not have a degree in geology. Applicants are encouraged to submit their GRE score to support their application.
5. Satisfy the School of Graduate Studies’ English Language Proficiency requirements as published in the graduate catalog.

Students missing any of the above requirements may be admitted under provisional or qualified status, but all admission requirements must be completed, without graduate credit, within one year after beginning graduate work.

Initial decisions for admission and financial aid are made about March 1 for the fall semester and about September 1 for the spring semester.

Undergraduate students in the Geology, Geological Engineering, or Environmental Geoscience majors are eligible for early admission to the M.S. program on qualified status, providing that they have:

1. Completed 95 semester credit hours of coursework.
2. Completed 30 semester hours of coursework and 8 hours of upper division coursework in the geological sciences, including the equivalent of physical and historical geology.
3. Achieved a GPA of 3.0 or better in the geological sciences.

Advancement to Approved status will occur when the student has completed the graduation requirements for the bachelor’s program they are enrolled in, and when all deficiencies have been removed.

Apply online: http://graduateschool.und.edu
Deadlines apply. See our website for more details.
Undergraduate students admitted on qualified status are eligible to take 500-level courses in their last two semesters prior to completing the bachelor’s degree requirements. Students must complete the petition titled, “Graduate Credit as an Undergraduate Student” prior to registering for the courses. Such courses could be included in the 30 credit hours for the degree and could appear in the program of study.

Degree Requirements

Students seeking the Master of Science degree at the University of North Dakota must satisfy all general requirements set forth by the School of Graduate Studies as well as particular requirements set forth by the Harold Hamm School of Geology and Geological Engineering.

1. A minimum of 30 semester credits in a major field, including the credits granted for the thesis and the research leading to the thesis.
2. At least one-half of the credits must be at or above the 500-level.
3. A maximum of one-fourth of the credit hours required for the degree may be transferred from another institution.
4. A minimum of 6 semester credits (undergraduate or graduate) must come from each subject area listed below:
   a. mineralogy, petrology, geochemistry
   b. sedimentology, stratigraphy, paleontology, geomorphology
   c. structural geology, geophysics, hydrogeology
5. Up to 12 hours of 300-400 level coursework in geology (and of courses listed in the Graduate section of the catalog) may be taken for graduate credit.

The time normally needed to complete the requirements for the master’s degree in geology is about two years of full-time work. Students with graduate teaching or research assistantships may need more time.

Faculty and Areas of Expertise

- Nels Forsman, Ph.D., Sedimentary Petrology, Diagenesis, Planetary Geology
- Philip Gerla, Ph.D., Hydrogeology, Environmental Geology, Wetlands, Geographic Information Systems
- William D. Gosnold, Ph.D., Heat Flow, Tectonics, Global Change, Isostasy, Structural Geology
- Joseph Hartman, Ph.D., Invertebrate Paleontology, Stratigraphy
- I-Hsuan Ho, Ph.D., Geological Engineering
- Richard LeFever, Ph.D., Sedimentology, Stratigraphy, Basin Analysis
- Taufique Mahmood, Ph.D., Hydrogeology
- Ronald Matheney, Ph.D., Hydrogeochemistry, Isotope Geochemistry, Paleoclimatology
- Stephan Nordeng, Ph.D., Petroleum geology, organic geochemistry
- Dexter Perkins, Ph.D., Metamorphic Petrology, Mineralogy
- Jaakko Putkonen, Ph.D., Geomorphology, Surface Processes, Quaternary Geology
- Dongmei Wang, Ph.D., Geological Engineering

Contact Information

Dr. Ronald Matheney, Graduate Program Director  
College of Engineering and Mines  
Harold Hamm School of Geology & Geological Engineering  
Leonard Hall Room 207  
81 Cornell Street, Stop 8358  
Grand Forks, ND 58202-8358  
Phone: 701-777-4569  
Fax: 701-777-4449  
http://www.geology.und.edu  
ronald.matheney@engr.und.edu

Apply online: http://graduateschool.und.edu

Deadlines apply. See our website for more details.

Last Updated: 9/11/2015  
Email: questions@gradschool.und.edu