Graduate Certificate in Environmental Geology

The Department of Geology, in collaboration with the KU Edwards Campus, offers a nearly all online graduate certificate in environmental geology. The certificate consists of 13 credit hours and coursework is completed in online or online-hybrid mode, with the exception of the required 1-credit-hour field techniques workshop course, which is offered in-person. The field course typically meets on a Saturday on the Edwards or Lawrence Campus and is supplemented with online material.

The certificate courses are a subset of the graduate science courses taught in the Professional Science Masters in Environmental Geology (PSM-EG) degree program. The graduate certificate can be completed as a stand-alone graduate certificate; as a graduate certificate paired with an appropriate graduate degree that the student is simultaneously enrolled in; or as a precursor to starting the full PSM-EG program.

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Admission to Graduate Studies

Admission Requirements

- All applicants must meet the requirements outlined in the Admission to Graduate Study (https://policy.ku.edu/graduate-studies/admission-to-graduate-study/) policy.
- Bachelor's degree: A copy of official transcripts showing proof of a bachelor's degree (and any post-bachelor's coursework or degrees) from a regionally accredited institution, or a foreign university with equivalent bachelor's degree requirements is required.
- English proficiency: Proof of English proficiency (https://gradapply.ku.edu/english-requirements/) for non-native or non-native-like English speakers is required. There are two bands of English proficiency, including Admission and Full proficiency. For applicants to online programs, Full proficiency is required.

Graduate Certificate in Environmental Geology – Admissions Requirements:

Individuals interested in applying to the Graduate Certificate in Environmental Geology should have a bachelor's degree from an accredited institution in geology or closely related field (natural, physical, or applied sciences, engineering) **OR** coursework of at least 20 credit hours in the natural and applied sciences (biology, chemistry, geology, physical geography, environmental sciences, or engineering). For those without the necessary background and courses in undergraduate science and mathematics, some additional coursework may need to be completed prior to the start of the graduate certificate program. Prospective applicants to the program are encouraged to contact the program to discuss past coursework.

Individuals who are not already enrolled as KU graduate students must complete an application to the Graduate School for admission into the certificate program and submit an application fee along with the following materials:

- Statement of interest: This 1-2 page narrative should succinctly summarize the applicant's education, employment history, long-term career goals, and how this graduate certificate will help achieve these goals.
- Official undergraduate and any post-graduate transcripts.
- A letter of recommendation from persons qualified to offer judgment on the applicant's ability to undertake graduate-level work; (former professor of instructor, workplace supervisor).

Current KU graduate students wishing to enroll in the Graduate Certificate in Environmental Geology program will apply through the Graduate School. A student must be in good standing with their graduate degree program in order to participate in the certificate program. A graduate GPA of 3.0 or higher is required for admission. Awarding of certificates will be handled consistent with guidelines and timing of degree awards of the Graduate School. Completion of the certificate will appear on the graduate transcript. KU graduate students should submit the following materials:

- A Statement of Interest in the environmental geology certificate program and its relationship to the applicant's current graduate course of study.
- An unofficial copy of the applicant's KU transcript.
- A letter of endorsement/support from the applicant's graduate degree program (thesis/dissertation advisor or graduate director)

For more information on admission to a graduate certificate program at KU, see the policy on Admission to Graduate Study (http://policy.ku.edu/graduate-studies/admission-to-graduate-study/). Applications may be submitted at https://gradapply.ku.edu/apply (https://gradapply.ku.edu/apply/).

This program may be completed primarily online, with the exception of the field workshop requirement. The field courses typically meet at the Edwards or Lawrence campus on a single Saturday, and are supplemented with online materials over the course of 8 weeks. Students may, alternatively, attend a week-long summer field course which is held in Colorado, and earn three workshop credit hours to fulfill the program's workshop requirements.

Code	Title	Hours
Core Requirements:		
EVRN 721	Environmental Regulation and Policy	3
GEOL 751	Physical Hydrogeology (Students with no previous hydrology courses must take GEOL 552, Introduction to Hydrogeology prior to taking this course; GEOL 552 will not count toward graduate elective credits for the environmental geology degree or certificate.)	3
GEOL 753	Chemical and Microbial Hydrogeology	3
GEOL 755	Site Assessment	3
Select 1 of the following field methods courses:		1-3

GEOL 536	Geological Log Analysis
GEOL 556	Field Methods in Hydrology
GEOL 557	Environmental Site Operations, Management, and Safety: HAZWOPER Health and Safety Standards
GEOL 791	Advanced Topics in Geology: _____ (Direct-push Methods for Site Characterization)
GEOL 851	Field and Laboratory Methods: Physical Hydrogeology
GEOL 853	Field and Laboratory Methods: Chemical Hydrogeology
GEOL 855	Field and Laboratory Methods: Environmental Geophysics
GEOL 856	Field and Laboratory Methods Special Topics: _____ (Environmental Geophysics)
Total Hours	**13-15**

At the completion of this program, students will be able to:

- Apply disciplinary and/or thematic training to practical situations through quantitative analysis, critical thinking assignments, or case studies.
- Identify and develop new or original interpretation or analysis of a relevant environmental topic through the application of disciplinary training in course projects.
- Communicate effectively in a professional environment through reports, graphical illustrations, or presentations.