

# Professional Science Masters in Environmental Geology

The Department of Geology in collaboration with the KU Edwards Campus now offers an online professional science masters (PSM) degree in environmental geology. This applied two-year program separates itself from traditional thesis-based research MS degrees in Geology and/or Hydrogeology through its direct integration of management, communication, and case study based coursework, with a focus of developing future government and industry professional leaders in environmental geology with a broad toolbox to address environmental problems.

Coursework for the PSM in Environmental Geology degree (<https://edwards-campus.ku.edu/environmental-geology-masters/>) is offered online, with the exception of the three (3) required 1-credit-hour field techniques courses, offered in-person at the Edwards Campus. These courses are in a workshop format that will be a single day or a weekend.

Environmental geology is an interdisciplinary field that seeks to address and study anthropogenically-derived and naturally occurring environmental hazards on Earth. The field is grounded in basic geological sub-disciplines such as mineralogy, sedimentology and stratigraphy but has primary focus on hydrogeology, geochemistry, geophysics and components of engineering geology. These sub-disciplines and the associated field and laboratory techniques in the form of a PSM program lead to an applied understanding of how to utilize geophysical, geochemical and hydrogeological techniques to evaluate, remediate, and monitor the impact or potential impact of contamination.

Contact:

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## Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (<http://catalog.ku.edu/graduate-studies/>) section of the online catalog.

Please consult the Departments & Programs (<http://catalog.ku.edu/liberal-arts-sciences/>) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

## PSM-Environmental Geology Degree - Admissions Requirements:

1. Bachelor's degree from an accredited institution; the applicant must have an undergraduate major 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)
2. A minimum grade-point average of B (3.0 on a 4.0 scale) for all previous university work is required (department requirement). Under extenuating circumstances an average below 3.0 can be considered.
3. Graduate Record Examination (GRE) (school code 6871):
  - a. **The GRE is not required** for applicants with an undergraduate degree in Geology from the University of Kansas with at least a grade-point average of B (3.0 on a 4.0 scale);
  - b. **The GRE may be waived**, upon departmental review, if the applicant has 2+ years of qualified professional and related experience, or has successfully passed the ASBOG Fundamentals of Geology examination.
  - c. For applicants with an undergraduate cumulative GPA of 3.0 or greater, the GRE is **recommended**, but not required;
  - d. For applicants with less than a 3.0, GRE scores are **required**. GRE scores should be from a test date within the last 5 years.
4. Statement of interest: This 1-2 page narrative should succinctly summarize the applicant's education, employment history, long-term career goals, and how this degree program will help achieve these goals.
5. Three (3) letters of recommendation from persons qualified to offer judgment on the applicant's ability to undertake graduate-level work;
6. International students must also meet the English proficiency (<https://gradapply.ku.edu/english-requirements/>), visa/I20, and financial requirements.

## Applications Deadlines

- Spring: December 15
- Summer: May 15
- Fall: August 1

This program may be completed entirely online, with the exception of the required Field Workshops. The Field Workshops are offered at the KU Edwards Campus in Overland Park or at the KU Lawrence Campus, and can be completed over one day or weekend.

The PSM-Environmental Geology degree requires a minimum of 36 credit hours.

Code	Title	Hours
Professional Skill Courses (12 credit hours)		
PFS 804	Project Management for Professionals	3
PFS 802	Managing Teams and Leading People	3
or PUAD 854	Innovation and Organizational Change	
PFS 803	Financial Management for Professional Success	3
PFS 730	Writing and Speaking for Decision Makers	3
or PFS 801	Interpersonal and Persuasive Communication Skills for Managers	
Or other professional skills courses chosen in consultation with an advisor		
Science Concentration (12 credit hours)		

EVRN 721	Environmental Regulation and Policy	3
GEOL 751	Physical Hydrogeology	3
GEOL 753	Chemical and Microbial Hydrogeology	3
GEOL 755	Site Assessment	3
Required Electives in Field Methods (Choose 3 of the following)		
GEOL 536	Geological Log Analysis	1
GEOL 855	Field and Laboratory Methods: Environmental Geophysics	1
GEOL 856	Field and Laboratory Methods Special Topics: _____	1
Other Electives (Choose at least 6 credit hours)		
GEOL 577	Environmental Geophysics	3
GEOL 715	Geochemistry	3
GEOL 791	Advanced Topics in Geology: _____	1-5
EVRN 510	Advanced Environmental Applications in Geospatial Techniques	3
EVRN 730	Environmental Toxicology	3
EVRN 736	Environmental Remote Sensing	3
Or other elective chosen in consultation with an advisor		
Capstone Requirement		
GEOL 814	Professional Science Masters Environmental Geology Capstone I	1
GEOL 815	Professional Science Masters Environmental Geology Capstone II	2