Stackable Certificate Programs, Geological Sciences

Stackable graduate certificates are available to degree-seeking and nondegree-seeking graduate students. Some stackable certificates may be awarded following completion of program requirements, while others require simultaneous awarding of the graduate certificate and a graduate degree.

See the Stackable Certificates section of this catalog for additional information and policies related to stackable certificates.

The graduate program for this catalog section offers the following stackable certificate programs. To see a full list of graduate certificates offered at the University, please see the Graduate Study section of the Graduate Catalog.

Geological Sciences: Machine Learning and Data Analytics (ML/DA)

The stackable graduate certificate in Geological Sciences: Machine Learning and Data Analytics (ML/DA) provides an organized framework to train students to be world leaders at the forefront of earth and data science. This stackable certificate program is designed primarily for geoscience graduate students and working geoscientists from industry, academia, and government organizations who desire additional expertise in modern tools of data analytics and machine learning. Geoscientists with their domain expertise and required training in ML/DA are better placed to make use of these advanced techniques for geoscientific problem solving. The program will require completion of four graduate courses (12 semester credit hours) in Geological Sciences, including a three-hour capstone project course. The program is available to degreeseeking and non-degree-seeking students.

	Requirements		Hours	
	GEO 398D	Topics in Machine Learning Data Analytics (Topic 5: Machine Learning Research)		3
	Nine additional hours se	elected from the following:		9
	GEO 398D	Topics in Machine Learning Data Analytics		
	GEO 398D	Topics in Machine Learning Data Analytics (Topic 1: Introduction to Machine Learning for Geosciences)		
	GEO 398D	Topics in Machine Learning Data Analytics (Topic 2: Applications of Data Analysis, Visualization, and Machine Learning)		
	GEO 398D	Topics in Machine Learning Data Analytics (Topic 3: Data Analytics and Geostatistics)		
	GEO 398D	Topics in Machine Learning Data Analytics (Topic 4: Subsurface Machine Learning)		
	GEO 392P	Python for Geoscience Research		
	GEO 393D	3D Analysis of Volumetric Data		
Total Hours				12