

^(u) **Final Course Requirements for Geosystems Graduate Students** (updated 12 Jan 2016)

Course Requirements

Entering Status and Degree Sought	Core Geosystems Courses	Applied Geosystems Courses	Advanced Geosystems Courses	Minimum GT Geosystems Credits Required	Non-CEE PhD Minor Credits	Minimum Degree Credits Required
GT or non-GT BS for MS	Minimum 4 of 5	Minimum 2		18	N/A	MS = 30 (note 1)
GT or non-GT BS for MS & PhD	Minimum 4 of 5	Minimum 1	Minimum 1	24 (Note 1)	9	MS + PhD = 48
GT or non-GT MS for PhD	Minimum 2 of 5 or demonstrate equivalency	Minimum 1	Minimum 1	12 (Note 2)	9	PhD = 24 (Note 3)

Note 1: Can include 6 credit hours of GT Special Research Topics.

Note 2: For select students, Advisor can request waiver based on student background by submitting a proposed alternative plan of study and comprehensive exam for review by Geosystems faculty.

Note 3: Can not include GT Special Research Topic credit hours.

Geosystems Engineering Grad Courses Guidelines

Core Geosystems Courses (7)	Applied Geosystems Courses (10)	Advanced Geosystems Courses (6)	Possible Non-Geo Students in addition to Geo Students (5)
Soil Behavior (SD)	Dynamic Analysis in Geotechnical Engineering (SD)	Critical State Soil Mechanics (various)	Infrastructure Failure Analysis (JDF)
Laboratory Characterization of Geomaterials (JDF/SEB)	Energy Geotechnics (SD)	Finite Element Method for Geomechanics (CA)	Mathematical Applications for Civil and Env. Eng (LNG)
Theoretical Geomechanics (HH)	Environmental Geotechnics (SEB)	Plasticity of Geomaterials (HY)	Rock Mechanics (LNG)
In-Situ Testing and Site Characterization (PWM)	(Geotechnical) Foundation Systems (PWM)	Tunneling and Mining: Mechanics & Engineering (CA)	Experimental Methods in Research (JCS)
Physical Properties and Rheology of Rocks (LNG/CA)	Applied Fracture Mechanics (LNG)	Geomechanics Modeling (HY)	Applied Signal Processing and Inverse Problem Solving (SD)
Ground Modification (SEB)	Geotechnical Earthquake Engineering	Wave-based Characterization of Particulate Materials (SD)	
Independent Research Study (all geofaculty)	Landfill Design and Management (SEB)		
	Sustainable Subsurface Infrastructure (JDF)		
	Geotechnical Seepage Analysis (HY)		
	Analysis of Earth Structures (JDF)		

Geosystems currently has 7 faculty members (12 January 2016)