

Final Course Requirements for Geosystems Graduate Students (updated in Dec 2021)

Course Requirements

Entering Status and Degree Sought	Core Geosystems Courses	Applied Geosystems Courses	Advanced Geosystems Courses	Minimum GT Geosystems Credits Required	Non-CEE Ph.D. Minor Credits	Minimum Degree Credits Required
BS for MS	Minimum 4 of 8	Minimum 2		18	N/A	MS = 30 (Note 1)
BS for MS & Ph.D.	Minimum 4 of 8	Minimum 1	Minimum 1	24 (Note 1)	9	MS+Ph.D. = 48
MS for Ph.D.	Minimum 2 of 8 or demonstrate equivalency	Minimum 1	Minimum 1	12 (Note 2)	9	Ph.D. = 24 (Note 3)

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

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

Note 3: Cannot include GT Special Research Topic credit hours

Geosystems Engineering Grad Courses Guidelines

Core Geosystems Courses (8)	Applied Geosystems Courses (8)	Advanced Geosystems Courses (4)	Possible Non-Geo Students in addition to Geo Students (4)
Laboratory Characterization of Geomaterials(JDF/SEB)	Dynamic Analysis in Geotechnical Engineering (SD)	FEM for Geomechanics (*climate change) (CA)	Infrastructure Failure Analysis (JDF)
Soil Mechanics (SD)	Foundation Systems (JDF)	Plasticity of Geomaterials (HH)	Mathematical Applications for Civil and Env. Eng (CA)
Theoretical Geomechanics (CA)	Applied Fracture Mechanics (CA)	Wave-based Characterization of Particulate Materials (SD)	Rock Mechanics(HH)
In-Situ Testing and Site Characterization (SD/JM)	Geotechnical Earthquake Engineering (JM)	Computational Methods in Mechanics (CA/JM)	Applied Signal Processing and Inverse Problem Solving (SD)
Physical Properties and Rheology of Rocks (HH)	Landfill Design and Management (SEB)		
Ground Modification (SEB)	Sustainable Subsurface Infrastructure (JDF)		
Critical State Soil Mechanics (JM)	Tunneling and Mining: Mechanics & Engineering (CA)		
Independent Research Study (all geo faculty)	Analysis of Earth Structures (JDF)		

Geosystems currently has 6 faculty members (updated in Dec 2021)