

Climate and Engineering, Graduate Certificate

Climate change is a defining challenge of the 21st century. This three-course certificate in climate and engineering provides students with the foundational knowledge of how climate change will impact engineered systems and approaches for adaptation at multiple scales. Students will also acquire the analytical skills to evaluate technologies and engineering approaches for safety, climate effectiveness, and equality in societal costs and benefits.

Program Requirements

Complete all courses and requirements listed below unless otherwise indicated.

Core Requirements

Code	Title	Hours
Complete one of the following:		4
CIVE 5363	Climate Science, Engineering Adaptation, and Policy	
CIVE 5699	Special Topics in Civil Engineering (Climate Technologies for Decarbonization, Mitigation, and Adaptation)	

Electives

Code	Title	Hours
Complete two of the following:		8
CIVE 5150	Climate and Atmospheric Change	
CIVE 5275	Life Cycle Assessment of Materials, Products, and Infrastructure	
CIVE 5281	Coastal Dynamics and Design	
CIVE 5363	Climate Science, Engineering Adaptation, and Policy	
CIVE 5670	Global Biogeochemistry	
CIVE 5699	Special Topics in Civil Engineering (Intro to Air Quality Engineering Science)	
CIVE 5699	Special Topics in Civil Engineering (Climate Technologies for Decarbonization, Mitigation, and Adaptation)	
CIVE 5984	Research (4 SH, with topic approval of program advisor)	
CIVE 7272	Air Quality Management	
ENGR 5670	Sustainable Energy: Materials, Conversion, Storage, and Usage	

Program Credit/GPA Requirements

12 total semester hours required

Minimum 3.000 GPA required