

# ENVIRONMENTAL HAZARD MANAGEMENT - CERTIFICATE

Environmental Hazard Management (EHM) is an interdisciplinary graduate certificate program that provides students with an understanding of the interrelationship between the built, social, and natural environment and extreme events. The EHM certificate, housed in the Hazard Reduction & Recovery Center in the College of Architecture, is open to students from any graduate degree program at Texas A&M University. The core courses provide a basic understanding of the entire range of issues related to environmental hazards, across mitigation, preparedness, response, recovery, and resilience. Specifically, these courses address basic theory, empirical research, and practical application related to both natural and technological hazards impacts and management. The courses also address the implications of disaster research for policy and planning at the household, organizational, community, regional, state, federal, and international levels.

This certificate is appropriate for graduate students who want to contribute to making communities more resilient to disasters and climate change. Students who complete the certificate will be able to interpret risk and vulnerability information, identify priorities, and analyze elements of disasters and/or disaster management to generate innovative, appropriate responses to community challenges. Students who complete the certificate are prepared to work in the fields of planning, policy, disaster research, hazard planning, disaster relief and recovery programming, and emergency management.

## Program Requirements

Code	Title	Semester	Credit Hours
PLAN 647	Disaster Recovery and Hazard Mitigation		3
Select two of the following:			6
PLAN 634	Environmental Health Policy and Planning		
PLAN 635/ LAND 635	Concepts in Ecological Planning and Design		
PLAN 641	Problems of Environmental Planning Administration		
PLAN 642	Planning for Coastal Sustainability and Resiliency		
PLAN 649	Organizational and Community Response to Crises and Disasters		
PLAN 650	Disaster Response Planning		
PLAN 689	Special Topics in... (must be a hazard/disaster related special topic course)		
Select two of the following: <sup>1</sup>			6
ATMO 629	Climate Change		
COMM 638	Crisis Communication		
COSC 663	Sustainable Construction		
CVEN 610/ PHEO 650	Environmental Risk Assessment		
CVEN 624	Infrastructure Engineering and Management		

CVEN 642/ BAEN 642	Water-Energy-Food Nexus: Toward a Sustainable Resource Management		
CVEN 657	Dynamic Loads and Structural Behavior		
CVEN 664	Water Resources Engineering Planning and Management		
CVEN 669	Design of Structures for Hazardous Environmental Loads		
CVEN 682	Environmental Remediation of Contaminated Sites		
ESSM 624	Terrestrial Ecosystems and Global Change		
ESSM 626	Fire and Natural Resources Management		
ESSM 631	Ecological Restoration of Wetland and Riparian Systems		
ESSM 633	Coastal Processes and Ecosystem Management		
ESSM 636	Wildland Watershed Management		
ESSM 660	Landscape Analysis and Modeling <sup>2</sup>		
ESSM 663/ SCSC 663	Applied Spatial Statistics <sup>2</sup>		
GEOG 612	Applied Climatology		
GEOG 616	Urban Geography		
GEOG 619	Human Impact on the Environment		
GEOG 621	Land-Use and Land-Cover Change		
GEOG 625/ ENTO 625	Landscape Ecology		
GEOG 634/ WMHS 601	Hydrology and Environment		
GEOG 660	Applications in GIS <sup>2</sup>		
GEOG 665	GIS-Based Spatial Analysis and Modeling <sup>2</sup>		
GEOG 676	GIS Programming <sup>2</sup>		
GEOL 633	River Restoration		
HLTH 609	Applied Epidemiology		
HLTH 629	Environmental Health		
HLTH 631	Community and Public Health		
HPCH 604	Social Ecology and Global Health		
HPCH 625	Health of Refugees and Displaced Populations		
INTA 635	Great Famines, War and Disaster Response		
MARS 610	Environmental Law		
MARS 625	GIS Use in Coastal Resources <sup>2</sup>		
MARS 626	Advanced GIS for Coastal Systems <sup>2</sup>		
MARS 635	Environmental Impact Statements and Natural Resource Damage Assessment		
MARS 640	Environmental Administrative Law		
MARS 652	Sustainable Management of Coastal Margins		
MARS 655	Wetlands Management		

