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 School 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: [1]		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	
ECCB 607	Terrestrial Ecosystems and Global Change	
ECCB 620	Ecological Restoration of Wetland and Riparian Systems	
ECCB 626	Fire Ecology	
ECCB 633	Coastal Processes and Ecosystem Management	
ECCB 660	Landscape Analysis and Modeling	
ECCB 671	Ecological Economics	
ESSM 636	Wildland Watershed Management	
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	Hydrology and Environment	
GEOG 660	Applications in GIS [2]	
GEOG 665	GIS-Based Spatial Analysis and Modeling [2]	
GEOG 676	GIS Programming [2]	
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 [2]	
MARS 626	Advanced GIS for Coastal Systems [2]	
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	
MARS 675	Environmental Management Strategies	
MARS 676	Environmental Policy	
OCEN 672	Coastal Engineering	

PHEB 605	Epidemiologic Methods I [2]
PHEB 606	Survival Analysis [2]
PHEB 607	Sample Survey Methodology [2]
PHEB 613	Field Epidemiology Methods [2]
PHEB 614	Analysis of Longitudinal and Multilevel Data [2]
PHEB 615	Disaster Epidemiology
PHEB 618	Spatial Epidemiology [2]
PHEB 624	Social Epidemiology
PHEB 626	Occupational And Environmental Epidemiology
PHEO 610	Toxicology in Public Health
PHEO 611	Environmental Health Assessment
PHEO 612	Global Environmental Health
PHEO 613	Introduction to Environmental Health Disparities
PHEO 614/ SCSC 614	Biodegradation and Bioremediation
PHEO 615	Environmental Measurement
PHEO 625	Environmental and Occupational Health Survey Methods [2]
PHEO 639	Hazardous Materials Management and Compliance
PHEO 650	Risk Assessment I
PHEO 676	Environmental Sustainability and Public Health
PHPM 642	Public Health Emergency Preparedness Policy Issues
PHPM 644	Texas Training Initiative For Emergency Response (T-Tier)
PLAN 622/ LAND 622	Critical Place Studies: Theory, Research and Practice
PLAN 625	Geographical Information Systems in Landscape and Urban Planning [2]
PLAN 626	Advanced GIS in Landscape Architecture and Urban Planning [2]
PLAN 629	Neighborhood Revitalization
RENR 660/ ESSM 672	Environmental Impact Analysis for Renewable Natural Resources
SENG 660	Quantitative Risk Analysis
SENG 677	Fire Protection Engineering
SOCI 617	Comparative Racial-Ethnic Relations
SOCI 647	Seminar in Demography and Human Ecology
SOCI 660	Theories of Race and Ethnic Group Relations
SOCI 661/ WGST 661	Sociology of Gender
SOCI 662	Racism and Anti-Racism
SOPH 602	Investigation and Control: Acute Public Health Events
Total Semester Credit Hours	**15**

[1] No more than three credit hours from research methods courses can count toward the EHM certificate.

[2] Research methods course.

The student must complete a professional study, thesis, or dissertation with an EH focus approved by the EHM Certificate Advisory Council. This project is submitted to the EHM Certificate Coordinator for review and approval by the committee.