University of North Carolina, Chapel Hill, Chapel Hill - Natural Hazards Resilience Certificate

Eligibility
The certificate program in Natural Hazards Resilience is open to master’s and Ph.D. students from all departments at the University of North Carolina at Chapel Hill that have identified an advisor in their home department that is willing to work with the head of the Natural Hazards Resilience certificate program or an advisor that is actively participating in the certificate program. The certificate program is open to non-degree-seeking, post-baccalaureate (graduate) students. All students must receive a P or higher in all certificate coursework.

Overview of the Program
The 10-credit hour certificate program is focused on the study of natural hazards resilience. Emphasis is placed on the nexus between the threats and impacts of natural hazards and disasters on human settlements, including those exacerbated by climate change, and how individuals, organizations, communities, and larger systems of governance prepare for, respond to, mitigate against, recover from, and adapt to these events. The concept of disaster resilience, or “the ability to prepare and plan for, absorb, recover from, and more successfully adapt to adverse events” (National Research Council 2012), serves as a key organizing principle. The curriculum provides students with an academic and practice-based exposure to the science underlying our understanding of natural hazards phenomena and a critical analysis of the policies, programs, and plans in place that are intended to help societies manage the effects of natural hazards and disasters, to include an emphasis on those actions that increase disaster resilience.

Educational Objectives:
1) Provide students with the knowledge and experience needed to actively contribute to the study and/or the practice of natural hazards and disaster resilience. More specifically, the certificate will produce well-trained researchers and practitioners who can help the public, non-profit and private sectors become more resilient in the face of natural hazards and disasters and adapt to the effects of a changing climate.
2) Attract and teach the next generation of natural hazards and disaster management scholars that are more reflective of the general population. In the case of disaster management, for instance, the field is less diverse than the general population, while those who study and engage in the practice of climate change adaptation comprise a relatively new cohort that is in need of additional scholars and policymakers. As such, the certificate program strives to be inclusive, as reflected in participation by underrepresented minorities, women, and a mix of students with academic and practice-based career goals.
3) Coalesce the world class UNCCH faculty to address one of the most pressing issues of the 21st century, namely reducing the negative effects of natural hazards and disasters on human settlements, including those influenced by a changing climate.
4) Develop an “esprit de corps” amongst students through the establishment of applied group projects in the classroom, engagement in research with participating faculty, formation of a student association, and exposure to leaders in the field through mentoring programs, a certificate program lecture series, workshops and fieldwork.

Students are strongly encouraged to gain experience through summer internships and/or fieldwork. Students may choose a 3-hour capstone option in fulfillment of the 3-hour elective requirement. This may include either a student internship or fieldwork (see a description of both options in the detailed program description). Capstone courses will follow the rules and procedures established for independent studies (see information on the Office of the University Registrar’s website under the title “UPM #30 Independent Study Policy”). A Maymester Natural Hazards Practicum course may fulfill the elective requirement when offered.

Additional Information: https://planning.unc.edu/

**Required Courses**

- Elective course
  - PLAN 754: Natural Hazards Resilience Speaker Series Course - 1 credit(s)
  - PLAN 755: Planning for Natural Hazards and Climate Change Adaptation - 3 credit(s)
  - PLAN 756: Survey of Natural Hazards and Disasters - 3 credit(s)
Elective Options

ENEC 530: Principles of Climate Modeling - 3 credit(s)
GEOG 811: Climate Change - 3 credit(s)
GEOL 508: Hydroclimatology - 3 credit(s)
GEOL 522: Physical Volcanology - 3 credit(s)
GEOL 710: Advanced Coastal Environmental Change - 3 credit(s)
GEOL 807: Physics of Earthquakes - 3 credit(s)
LAW 262: Ocean and Coastal Law - 3 credit(s)
MASC 506: Physical Oceanography (GEOL 506) - 4 credit(s)
PLAN 740: Land Use and Environmental Policy - 3 credit(s)
PLAN 744: Development and Environmental Management - 3 credit(s)
PLAN/ENE 641: Ecology and Land Use Planning - 3 credit(s)
PUBA 553: Disasters and Public Policy - 3 credit(s)
SOWO 709: Helping Families and Children Managing the Effects of Disasters - 3 credit(s)

University of North Carolina, Chapel Hill is a member of the Southern Association of Colleges and Schools Commission on Colleges and the Council on Education for Public Health.
Core Capabilities

- Community Resilience
- Economic Recovery
- Housing
- Long-term Vulnerability Reduction
- Natural and Cultural Resources
- Planning
- Public Information and Warning
- Risk and Disaster Resilience Assessment
- Situational Assessment
- Threats and Hazards Identification

Core Competencies

- Abide by Professional Ethics
- Community Engagement
- Geographic Literacy
- Governance and Civics
- Leadership
- Operate within the EM Framework, Principles, and Body of Knowledge
- Possess Critical Thinking
- Sociocultural Literacy
- Value Continual Learning

Internship is optional

For More Information:

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