UCONN

NATURAL RESOURCES AND THE ENVIRONMENT

University of Connecticut

Position Description: The UConn NRE Ecohydrology lab (http://www.jamesknightonhydrology.com/) is recruiting one full time Master's student with possible start dates of **June 1, 2022** or **September 1, 2022**. The position is fully funded to carry out research on community responses to flooding risk via Socio-Environmental modeling.

Overview: The graduate student will work in the Ecohydrology Lab under the supervision of Assistant Professor James Knighton. Our research project will involve the development and calibration of Socio-Environmental models to describe how coastal communities along Long Island Sound are responding to flooding events (e.g., migration from floodplains, uptake of insurance, modified construction). We will specifically study how relationships between communities and environmental hazards vary with demographics describing social vulnerability. This MS position will involve data analysis, computer modeling, and interaction with state and federal policy makers. Modeling work will involve editing computer code to improve the simulation of Socio-Environmental processes and then using these improved models to study how and why communities are responding to disasters in different ways. We will then use the calibrated models to forecast how community perceptions and behaviors with respect to coastal flooding might change under hypothetical scenarios with increased frequency of coastal inundation. This project also involves several workshops that will be held with representatives of state (CT Hazard Mitigation Office) and federal (FEMA) experts working on regional flood mitigation. We will communicate our research findings to these organizations and discuss the potential for integration of research and policy. The prospective student will also gain experience in teaching and grant writing.

Requirements:

- BA/BS degree in hydrology, environmental science, agricultural engineering, civil engineering, environmental engineering, geography, or a related field.

Preferred qualifications:

- Prior coursework on hydrology and environmental science
- Experience with R, Matlab, or Python.

To Apply: Please submit the following to james.knighton@uconn.edu. Applications will be reviewed as they are received.

- Statement of research interests (no more than 1 page)
- A complete Curriculum Vitae or Resume
- Contact information for two professional/academic references (name, phone, email)