

Job REQ09329

Postdoctoral Fellow: Coupled Physical-biogeochemical Modeling of Water Quality and Harmful Algal Blooms

This position is located at Florida Atlantic University's Harbor Branch campus located in Fort Pierce, FL.

Salary: \$54,000 annually

Position Summary:

Harbor Branch Oceanographic Institute (HBOI), Florida Atlantic University (FAU) is seeking a Postdoctoral Fellow to conduct coupled physical-biogeochemical modeling of water quality and harmful algal blooms (HABs) in Florida estuaries and coastal oceans.

The Postdoctoral Fellow will be a self-motivated and independent modeler with strong interest in conducting interdisciplinary work to understand water quality and ecosystem health in freshwater lake, estuaries and coastal oceans. The primary research areas will be Indian River Lagoon, St. Lucie Estuary, and Caloosahatchee Estuary. These areas have experienced different types of HABs involving both freshwater and saltwater species. The main objectives of numerical modeling are to understand the controlling physical and biogeochemical processes including watershed nutrient inputs, internal nutrient cycles, and modulation by sediment diagenesis and vegetation, and ultimately to predict the algal blooms under the influences of human activity and climate change.

The position is jointly funded by NASA and HBOI Foundation including HBOI Florida Center for Coastal and Human Health that involve a team of collaborators with diverse interests in remote sensing, laboratory experiments, and field observations (<https://www.fau.edu/hboi/flcchh/>). The candidate should be willing to collaborate with scientists within and outside of FAU in a university culture that fosters innovation and collaboration. The initial appointment will be one year with possible renewal depending on funding availability and the performance.

Primary duties and responsibilities:

- Develop and implement coupled physical-biogeochemical models for studying harmful algal blooms, water quality, and carbon cycle in various freshwater lakes, estuarine and coastal regions.
- Perform numerical simulations, analysis of the model results, and data analysis, and prepares scientific reports, presentations and/or publications.

Additional duties and responsibilities:

- Occasionally participate and assist in field and/or lab work.

Required qualifications:

- A Ph.D. from an accredited institution in Marine Science, Oceanography, or closely related fields by time of application.
- Strong mathematical skills and significant programming experience (e.g. Fortran, Matlab, Python, Linux).
- Significant experience in numerical modeling and familiar with at least one of the ocean models such as ROMS, POM, and FVCOM.

- Significant experience in marine interdisciplinary research such as water quality, biogeochemistry, phytoplankton blooms, and/or ecosystem dynamics.

All applicants must apply electronically to the currently posted position on the Office of Human Resources' job website (<https://fau.edu/jobs>) by completing the required employment application for this recruitment and submitting the related documents.

- 1) cover letter
- 2) curriculum vitae
- 3) research statement
- 4) copies of official transcripts scanned into an electronic format
- 5) contact information for three reference

PLEASE NOTE: A maximum of five (5) documents may be attached to your application. If more than five (5) documents are required for submission, please combine additional documents into one attachment to not exceed the maximum permitted.

Confidential letters of recommendation may be emailed to: crossmel@fau.edu

Degrees from outside the United States must be validated by an organization belonging to the National Association of Credential Evaluation Service (NACES), with an indication of the documents the evaluation was prepared from (official transcripts, diplomas, dissertation abstracts). The evaluation should be scanned and electronically attached to one's application as with other US-based transcripts.

Prior to appointment, the candidate must submit official, sealed transcripts from all institutions where graduate coursework was attempted, whether or not a degree was obtained, as well as an original NACES evaluation, if applicable. Transcripts must be issued to Florida Atlantic University not to you as the student.

A background check will be required for the candidate selected for this position. This position is funded for one year with additional funding possible but not guaranteed. This position is open until filled and may close without prior notice.

Individuals requiring accommodation, please call 561-297-3057. 711