Postdoctoral Research Associate – Coastal Evolution Process Modeling

William & Mary's Virginia Institute of Marine Science (VIMS) seeks a postdoctoral investigator to work with Dr. Christopher Hein in the Department of Physical Sciences. The successful candidate will start in early 2021 and be a member of the Coastal Geology Lab (CGL), which works to address the complexities of coastal evolution, with particular emphasis on the sources, delivery mechanisms, and climatic and autogenic controls on sedimentation and erosion rates, with the goal of forecasting the impact of future climate change on coastal systems. Specifically, the Postdoctoral Research Associate will primarily be engaged in the development of forward- and backward temporal topographic-bathymetric model grid projections for a wave, hydrodynamic, and sediment-transport model (Delft3D) of Chincoteague Inlet, Virginia. The Postdoctoral Research Associate will also work with external collaborators and VIMS graduate students on the development and implementation of decadal-scale coastal dune-beach process models to study dune morphodynamics.

Responsibilities: The responsibilities of the position include interaction with external researchers from multiple academic, nonprofit, and governmental institutions, graduate student training, communication of research results, and development of independent research topics consistent with the goals of the CGL.

About the Virginia Institute of Marine Science: VIMS (http://www.vims.edu) has a three-part mission to conduct interdisciplinary research in coastal ocean and estuarine science, educate students and citizens, and provide advisory service to policy makers, industry, and the public. VIMS serves as the School of Marine Science for William & Mary with masters and doctoral programs within four academic departments: Biological Sciences, Aquatic Health Sciences, Fisheries Science, and Physical Sciences.

Qualifications: At the time of appointment, the successful applicant should have recently obtained a Ph.D. or equivalent in coastal, marine, or earth sciences, or a related field. Additionally, the following skills are expected: strong quantitative skills and experience with coastal process models, in particular Delft3D; working knowledge using a LINUX platform, and FORTRAN, MATLAB, and/or Python; knowledge and experience in process-based research in coastal beach, barrier island, and tidal inlet systems; ability to interpret coastal geologic, sedimentologic, and geochronologic data; expertise in long-term (multi-decadal to millennial) morphodynamics of coastal systems; evidence of scientific communication skills. Candidates possessing the following are particularly encouraged to apply: experience with two-dimensional beach morphodynamics models (*e.g.*, XBeach); knowledge of coastal sediment transport and tidal-inlet dynamics; experience with field coastal sedimentology, morphology, and process data collection, and associated laboratory analyses; evidence of publishing; experience mentoring or co-mentoring junior scientists.

Application materials Applications should include a one- to two-page statement of research experience and interests, a cover letter indicating the candidate's availability for this position, a CV, and contact information for three references.

Application materials should be addressed to: Dr. Christopher Hein and will be accepted through our On-Line Application System at http://jobs.wm.edu/postings/40080. For full consideration, application materials are due December 29, 2020; however, applications received after this date will be reviewed if necessary. For more information, prospective candidates are encouraged to contact Dr. Hein at hein@vims.edu.

William & Mary (W&M) values diversity and invites applications from underrepresented groups who will enrich the research, teaching and service missions of the university. W&M is an Equal Opportunity/Affirmative Action employer and encourages applications from women, minorities, protected veterans, and individuals with disabilities.