



ASSISTANT/ASSOCIATE/FULL RESEARCH FACULTY POSITION DIGITAL MARINE CARTOGRAPHER CENTER FOR COASTAL AND OCEAN MAPPING JOINT HYDROGRAPHIC CENTER

SUMMARY OF POSITION

The University of New Hampshire's Center for Coastal and Ocean Mapping/Joint Hydrographic Center, within the School of Marine Sciences and Ocean Engineering, invites applications for a Research Faculty position with experience in the digital manipulation and display of cartographic data in support of nautical charting. UNH actively creates an educational environment that fosters diversity, inclusion, and quality engagement for all.

RESPONSIBILITIES

The successful candidate will be expected to conduct state-of-the-art research, and develop techniques to efficiently and accurately convert the processed data (e.g., gridded bathymetry) of modern, high-resolution bathymetric surveys (multibeam sonar, LIDAR, satellite derived bathymetry, etc.), along with other situational data (e.g., predictive wind/wave/tide models, traffic information, etc.) into products suitable for safe navigation, and for aiding decision-making on the bridge and ashore; products could be purely digital (e.g., gridded data with generalization behaviors), paper-like (e.g., a better, dynamic electronic chart), some combination of raster and vector components, paper-compatible (e.g., a static, printable, representation of the data), or a fully dynamic decision-making aid. Research will also be conducted on the compilation of data sets of various ages, quality, and density into modern chart products; the generalization of very dense data sets; interactions between raster and vector chart-components to form dynamically adjustable composite products; automated or computer-assisted digital nautical cartography; and new ways to display uncertainty associated with the data presented. The candidate will work with our team of ocean mappers, signal processors, and computer visualization experts to develop products that respect the principles of both safe navigation and human-computer interaction.

The position will be fully funded for an initial period of five years and can be renewable upon successful competition for funding beyond this time. The position is open for appointment at all levels (Assistant, Associate, or Full Research Professor) to be determined upon review of finalist's qualifications.

MINIMUM QUALIFICATIONS

Doctorate in Cartography, Geography, Earth Science, Computer Science, Ocean Engineering or related field.
Must demonstrate evidence of:

- 1) Ability to establish and maintain a productive level of scholarly work;
- 2) Ability to establish and maintain a productive research program including writing competitive research proposals;
- 3) Ability to mentor and interact with graduate students and teach graduate level courses if required;
- 4) Ability to participate in Department and School activities as required;
- 5) Background of research and practice in digital cartography.

The position will be a full-time research faculty position appointment. Candidates will be evaluated on their: 1) academic credentials; 2) research and scholarly promise; and 3) commitment to creating an educational and research environment that fosters diversity, inclusion and quality engagement for all. The position is open to candidates at all levels of academic rank.

ADDITIONAL DESIRABLE QUALIFICATIONS

Experience with digital nautical cartography.

APPLICATION

Letters of application must be received by **September 1, 2016**.

To receive full consideration for this position, in addition to completing the required online application form, please be prepared to submit your resume or curriculum vita, and a cover letter.

The address for receipt of resumes is <https://jobs.usnh.edu/>



The University of New Hampshire is a major research institution, providing comprehensive, high-quality undergraduate programs and graduate programs of distinction. UNH is located in Durham on a 188-acre campus, 60 miles north of Boston and 8 miles from the Atlantic coast, and is convenient to New Hampshire's lakes and mountains. There is a student enrollment of 13,000 students, with a full-time faculty of over 600, offering 90 undergraduate and more than 70 graduate programs.

The University seeks excellence through diversity among its administrators, faculty, staff, and students. The university prohibits discrimination on the basis of race, color, religion, sex, age, national origin, sexual orientation, gender identity or expression, disability, veteran status, or marital status. Application by members of all underrepresented groups is encouraged.