The School of Earth and Climate Sciences (Dr. Sean Smith) and Department of Civil and Environmental Engineering (Dr. Melissa Landon) are pleased to announce the opening of a new co-advised PhD research assistantship position focused on fluvial geomorphology and civil (geotechnical and water resources) engineering in Maine. The person selected for this position will participate in exciting interdisciplinary research activities related to the assessment of stream systems and best practices for engineered roadway stream crossings in the beautiful post-glacial landscape of Maine. Research targets will include:

- Development of predictive relations for stream channel dimensions;
- Quantification of stream channel dynamics based on measurements and modeling techniques;
- Interpretation of fluvial forms and features as related to Traditional Ecological Knowledge (TEK) of Native American cultures and modifications by industrial (logging, energy) activities, and;
- Design of sustainable infrastructure in rural areas of the state dominated by agricultural activities.

Types of research activities may include the following:

- Field work, including topographic surveys, sediment sampling (e.g., grab samples in stream channels and cores in deposits), stream flow measurements.
- Laboratory work, including sediment grain size analyses, core sediment characterizations, sample prep for isotopic analyses.
- Modeling, including spatial data analyses, watershed hydrology, channel and floodplain hydraulics, and sediment transport.
- Participating in stakeholder engagement, including historical literature reviews and interviews.

A qualified candidate will have the following academic background:

- Minimum of B.S. in earth science, civil engineering, geologic engineering, or related disciplines.
- Minimum two semesters in Calculus and Calculus-based Physics.

Preference will be given to applicants with:

- Undergraduate coursework in soil mechanics, foundation design, and water resources engineering (surface water hydrology, ground water hydrology, etc.).
- Applicants who've completed an M.S. degree
- Applicants with previous experience with one or more skills: field work, lab work, modeling

Assistantship includes tuition, an annual stipend of $21,000, and half the annual health insurance fee. Assistantship will be renewed yearly with satisfactory performance. Starts September 2018.

How to apply: 1) Send cover letter and resume describing research and professional interests to Dr. Smith (sean.m.smith@maine.edu), and 2) Apply to the Graduate School: https://umaine.edu/graduate/apply/.