Primary grant:

Secondary grant:

Potential grants we could apply for: Aizen Climate Research Scholars Fund, Dean Archer Undergraduate Research Fund

Project title:

Developing a stage-discharge rating curve for an impounded estuary using thermal infrared surface velocimetry

Has this project received support from an Undergraduate Research Award from this program in the past?

* No

How will funding this student and project contribute to your research group’s goals?  Please explain how this project advances your scholarly work and why the selected student is a strong fit for their role in the project. (Maximum length: 250 words/2000 characters.)

* How funding student + project contributes to goals:
  + Project needs lab validation of field measurements
  + Experiments with scale model will help us understand how the water behaves in and around the culvert
* Why strong fit:
  + Has previous experience in environmental fluid mechanics lab, working with sensors that can also be used for this project
  + Has taken the fluid mechanics course that provides a foundation for concepts applied in this project
  + Is excited about this project because of its connections to coastal engineering and ecological restoration

If the project, or the student, has been previously funded through this grant program, please describe the progress to date on the project and explain the need for continued funding. (Maximum length: 150 words/1200 characters.)

* Neither the project nor the student has been previously funded through this grant program.

Mentoring Plan (Max 150 words / 1200 characters)

Describe your mentoring plan for the undergraduate researcher(s). Please include:

Who will serve as the student’s mentor(s), including names and roles (e.g., faculty, graduate student, postdoc)

The responsibilities of each mentor in supporting the student’s research and development

How the student will participate in research group activities (e.g., meetings, presentations, lab work)

Any planned training, skill-building, or professional development opportunities

Any mechanisms for documenting or assessing student expectations, progress, or other outcomes

* Mentors:
  + Prof. Todd Cowen, faculty – training and guidance for Claire to learn the necessary lab techniques. Regular meetings for research strategies and directions, feedback, and answering questions
  + Evan Heberlein, graduate student – regular meetings for research strategies and directions, feedback, and answering questions
* How student will participate in research group activities:
  + Participate in weekly EFMH seminars
  + Present results at the end of the semester at the EFMH seminar
  + Design and carry out laboratory experiments
* Training/skill building/professional development opportunities:
  + Will need to be onboarded to how the flume works, velocity measurement techniques
  + Potential to connect with other stakeholders in this project and discover opportunities in coastal restoration

What hourly wage will the student receive? NYS minimum is $15.50, and we recommend $15.50-$18.00 dependent on student experience/level.

* $16/hr?

How many weeks and hours per week will the student dedicate to this project during the funding term? (Maximum length: 400 characters.)

* Number of weeks: 14 (Sept 15th - Dec 20th for the purposes of this grant)
* Hours per week: 8

Is student eligible for Federal Work Study? No.

Requested Budget: $1,792

Student Wages $1,792

Project Support (supplies, materials, services): $0

Do you have external funding that supports this research? Please describe any efforts you have made to secure funding for undergraduate researchers, including pending or past proposals, institutional support, or other sources. (Maximum length: 150 words/1200 characters.)

* External funding:
  + Cornell Atkinson Academic Venture Fund
  + USGS 104G
* These grants cover materials for the project but do not include funding for an undergraduate student

Do you require the full amount requested in order to support this student(s) in your research group? Yes