**DENIN Environmental Scholars Internships**

Dates of internship: Summer 2020 (June 8 – August 13, 2020)

Location: Virtual meetings only, Center for Experimental and Applied Economics, University of Delaware, Newark, DE 19716

Number of positions available: 1 – **Note: This is a continuation of research associated with Project WiCCED. Laura Taylor has been working on this project since November 2019, and I would like to continue working with her over the summer.**

Faculty Mentor: Dr. Leah Palm-Forster

Graduate Student Mentor:

Professional Staff Mentor:

**Project Title:** Homeowners’ willingness-to-pay for stormwater best management practices in Delaware (Social Dimensions)

**Research Description:**

Managing stormwater is critical in urban and suburban landscapes in order to reduce pollution entering our waterways. Homeowners can help manage stormwater by adopting residential practices that slow the flow of stormwater and improve filtration via natural processes. We will use a survey and economic field experiment to analyze household willingness-to-pay for stormwater management practices —such as rain gardens and conservation landscaping—with assistance from regional grant programs that share in the costs of adoption. This study will also examine the impact of hypothetical bias (the tendency to overstate willingness-to-pay in hypothetical scenarios) in stated preference research. We will work with local watershed associations to introduce consequentiality to the survey and experimental design. Consequentiality includes both following-up with residents who state a willingness to adopt and implementing a subset of stormwater management practices among selected households.

During the Summer 2020, the intern would assist with data management and cleaning, preliminary data analysis, and outlining the manuscript and presenting preliminary results.

**Research Questions:**

1. How much are households willing-to-pay to implement stormwater management practices such as installing rain gardens and conservation landscaping?
2. Does willingness-to-pay for stormwater best management practices differ when homeowners answer hypothetical questions about implementation versus questions that may lead to real implementation of residential management practices?

**Student Learning Objectives: Professional and Research Skills**

This internship focuses on the development of the following professional and scientific skills.

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| Broad Professional Skills | Specific Skills |
| Planning and time management | Ability to set and complete specific foals of varying scope |
| Express ideas in writing | Write descriptions of research procedures, create a poster of your research, communicate via email professionally and in a timely and consistent fashion |
| Express ideas verbally | Discuss research activity in lab meetings, present poster at symposium |
| Work independently | Independent work ethic – work independently or with peers to problem solve |
| Develop professional network | Work with lab team and broader Social Dimensions and Project WiCCED team to develop professional network, and utilize peer-groups to problem solve. |
| Maintain professional attitude and work principles (i.e. integrity, responsibility, diligence, following ethical standards) | Be on time, learn procedures, ask questions if unsure, respect everyone you work with, complete and maintain Institutional Review Board (IRB) Certification to work with human subjects in research |

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| Broad Scientific Research Skills | Specific Skills |
| Understand scientific terms | Behavioral, experimental and environmental economics |
| Locate scientific articles and resources | Conduct searches for literature on environmental valuation |
| Understand research questions |  |
| Read and understand research articles |  |
| Apply research tools and techniques in research experiments | Participate in the development of and data collection of surveys to quantify willingness to pay for water quality improvements. |
| Understand, apply, and explain scientific concepts and theories | In lab meetings, with lab personnel, and during research symposium |

**Prerequisites:**

Introductory experience with economics (e.g., successful completion of APEC 100, APEC 150, ECON 101, or similar course). Experience using Qualtrics and designing and developing stated preference surveys. Knowledge of issues related to stormwater management.

**Work Environment and Expectations:**

Work environment: All work will be done remotely. The student will meet with Dr. Palm-Forster at least once per week via Zoom to discuss the goals for the week. Work will consist of literature review, data management and cleaning, preliminary data analysis, and outlining a manuscript. Hours are flexibly determined between student and mentor. Students will work full time during the summer from June 8, 2020-August 13, 2020. Students will also participate in virtual events scheduled by DENIN and in the virtual Applied Economics Seminar Series.

**Stipend:**

$4,000 Direct deposit is required.

**Funding Source:**

National Science Foundation, Delaware EPSCoR Track I

**How to apply: (see below)**  <https://ugresearch.udel.edu/PUB_Program.aspx>

**This position would be filled by Laura Taylor, who has been working on this project since November 2019.**