**DENIN Environmental Scholars Internships**

Dates of internship: November 1, 2020 – May 7, 2020

Location: Townsend Hall, University of Delaware, Newark, DE 19711

Number of positions available: 1

Faculty Mentor: Dr. Brandon McFadden

Graduate Student Mentor: Adam Pollack

Professional Staff Mentor:

**Project Title:** Examining the adoption of oyster farming in Delaware (Social Dimensions)

**Research Description:**

Prior to the summer of 2017, Delaware was the only coastal state in the U.S. not to have an active oyster aquaculture fishery. After the approval of new acreage for inland bay oysters, it was estimated that the Delaware oyster industry has growth potential of $1 to $2 million annually. Additionally, research found that consumers prefer local oysters and are willing to pay a premium. While oyster production in Delaware appears to be economically feasible, growers are not using the vast majority of the available acreage. Currently, there are 277 parcels available for oyster production and only 51 leased parcels. It is not clear if the lag in production is due to production-related or consumption-related issues. Furthermore, if the underutilization of available parcels is due to production risk, it is not clear if those risks can be controlled by growers. Diseases like MSX and Perkinsus marinus can result in excessive mortality rates of 90-95%.

**Research Questions:**

1. If oyster production is economically feasible, what is causing the slow production growth?
2. What are production concerns for current and possible producers?
3. Can production risks be managed by producers, or is producer risk mostly exogenous?

Research Interns will be engaged primarily with the research project described above, but interns will have opportunities to be involved in other projects that are part of the Social Dimensions research for Project WiCCED (projectwicced.org); See Internship Descriptions for the following projects to learn about other Social Dimensions research opportunities:

* Cover crop persistence by Delaware farmers: A GIS investigation
* Continued participation in citizen science
* Examining the adoption of oyster farming in Delaware
* Experimental economics study of groundwater management
* Randomized controlled trial related to recruiting diverse students
* Homeowners’ willingness-to-pay for stormwater best management practices in Delaware

**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 economic experiments and/or surveys to understand human behavior related to water issues. |
| 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)

**Work Environment and Expectations:**

Laboratory environment: Work will primarily take place in 025 Townsend Hall. Hours are flexibly determined between student and mentor. Students will work part time during the fall and spring semesters, and full time during UD Winter Session, January 6-February 8, 2020. Students will also participate in a retreat, communications workshop and end of internship spring symposium.

**Stipend:**

$3,500 Direct deposit is required.

**Funding Source:**

National Science Foundation, Delaware EPSCoR Track I

**How to apply:** <https://ugresearch.udel.edu/PUB_Program.aspx>