

## **Public Policy and Techno-Economics of Plastics PhD Graduate Research Assistantship**

The University of Delaware (UD) is seeking a PhD research assistant to support a new interdisciplinary, National Science Foundation (NSF) funded EPSCOR research project. The *Advanced Manufacturing of Renewable and Recyclable Polymers* project is a four-year endeavor seeking to develop novel catalysts and viable processes to transform biorefinery feedstocks into relevant plastics and deconstruct recycled plastics for reuse instead of disposal.

**Research Project:** The research has three main components: (1) Techno-economic analyses and (2) Environmental and energy life cycle assessments that will identify barriers to achieving sustainable processes and potential solutions and; (3) Macroeconomic state level analysis that explores public policies and incentives to promote rural economic growth and market penetration of the new materials.

**Candidates:** Students in historically under-represented groups are especially encouraged to apply.

### **Required Qualifications:**

- Highly motivated to explore the relationships between public policy and energy, environment and economics in the manufacturing industry
- Training in quantitative methods such as statistics, mathematical modelling and econometrics and willingness to advance such training
- Demonstrated excellence in written communications skills and project management

### **Preferred Skills and Experience:**

- Research experience in any or all of the areas - techno-economic analysis, life cycle assessment, macroeconomic analysis
- Professional experience in relevant manufacturing industry or energy environmental regulation
- Experience operating in a highly motivated academic research environment

The position is competitive and includes tuition waiver for Fall and Spring semesters and an attractive annual stipend for four years. Acceptance into either of two UD PhD programs is required: the PhD in Energy and Environmental Policy at the Joseph R. Biden Jr School of Public Policy and Administration (Biden School) or the PhD in Public Policy and Engineering jointly managed by the Biden School and UD Engineering. Matriculation is either February (Spring) 2022 (preferred) or September (Fall) 2022. Timely application is encouraged and review of applications will commence immediately.

*This project will be supervised by Dr. Kalim Shah at the Biden School.* For questions, and if you intend to apply for a research assistantship, you should contact Dr. Kalim Shah, kalshah@udel.edu. When applying for graduate admission, please note in your personal statement your interest in the *Public Policy and Techno-Economics of Plastics* research assistantship.