

“The RFS (Renewable Fuel Standard) program (aims at) reducing greenhouse gas emissions along with expanding the nation’s renewable fuels sector while reducing reliance on imported oil. The program requires a certain volume of renewable fuel to replace or reduce the quantity of petroleum-based transportation fuel, heating oil, or jet fuel.” EPA

Dr. Nadya Zyaykina, Research Assistant Professor in EEE, is seeking undergraduate students interested in earning 2-3 research credits (involvement 6-9 hours per week) during Spring Semester 2025 in the frame of EEE 49800 on the topics related to bioenergy technology development from waste lipid-based feedstocks.

The Undergraduate Research Assistant(s) – URAs – are going to support the start-up of the experimental research towards characterization of (contaminated) used cooking oil and other (waste) lipid-based feedstocks and biofuel produced thereof. The student(s) will learn the basics of lipid chemistry, operation of the advanced lab equipment and instrumentation, sample handling techniques, statistical data analysis and safe laboratory practices.

The requirements are:

- 1) Willingness and ability to responsibly work in chemistry labs with hazardous chemicals. Detailed safety training and PPE (Personal Protective Equipment) will be provided.
- 2) Ability to follow written experimental protocols (SOPs = standard operating procedures) to the letter.
- 3) Ability to keep to the pre-scheduled appointments to insure the team work. The experimental schedule will be developed together with the student(s) accounting for everyone’s availability and will be limited to Monday-Friday, 8 am – 5 pm.
- 4) Prior lab experience is preferred, but not required.

Interested students should contact Dr. Zyaykina (nzyaykina@purdue.edu) for further details and to initiate the registration process.