

First Year Research Award: Chemistry

Faculty Supervisor: Professor Kristin Cline

Position Title: First Year Research Scholar in Chemistry

Criteria: The Wittenberg University Department of Chemistry will offer a First Year Research Award for the academic year 2025-2026 to an incoming student to work with Professor Kristin Cline. This student will have a demonstrated academic ability and/or research interest in chemistry.

Expectations: FYRA Scholarship recipients will devote between 6 and 8 hours per week across their first year to the FYRA program and their research-related project, according to the FYRA Learning Contract agreed upon by the sponsoring professor and the scholarship recipient. Recipients will also be expected to participate in a regular meeting of FYRA recipients, present their results in an appropriate forum and submit a copy of their presentation to the appropriate university office. FYRA Scholarship recipients will also participate in an assessment of the FYRA program. (The FYRA Scholarship is not part of a student's work study award.)

Research Activity: Water and soil contain salts that dissociate into ions with positive and negative charges. Anions (ions with negative charges) such as nitrate and phosphate are important nutrients, but at high levels cause environmental and health issues. Fluoride is often added to municipal water supplies to prevent dental caries, but is toxic at high levels. The FYRA scholar will continue a project that uses ion chromatography to detect and quantify anions in water, soil, and other interesting samples. The recipient will collect samples, make solutions, learn to use and maintain the ion chromatography instrument, and measure the anion content in the samples. Recipients should have an ability to work independently, good mathematical skills, good manual dexterity, an attention to detail, patience for repeating experiments, and a curiosity about how the physical world works.