COURSE SYLLABUS

CHEM 3189

Undergraduate Research (Independent Study)

Instructor: Dr. Anthony Provatas

Semester: Spring 2026

1-3 Credits

COURSE OVERVIEW

Original investigation carried on by the student under the guidance of a laboratory staff member. The student is required to submit a brief report at the end of the semester.

LEARNING OBJECTIVES

Introduction to applied **Analytical Chemistry** and participation in projects requiring the analysis of persistent organic pollutants and small bioactive molecules in complex matrices. Introduction to key laboratory equipment, software and standard operation procedures (SOPs). Develop critical laboratory skills.

COURSE REQUIREMENTS

Attendance in the laboratory is based on the number of credits.
1 credit requires 3 hours/week of laboratory student engagement.
2 credits requires 6 hours/week of laboratory student engagement.
3 credits requires 9 hours/week of laboratory student engagement.

Students will assist staff in research efforts within a laboratory environment. Students will be introduced and are required to perform: electronic log-in of samples; sample preparation and analyses; operate laboratory equipment; keep detailed record-keeping; organize and communicate data; attend required EH&S laboratory training sessions.

Students are required to submit a brief report at the end of each semester.

COURSE ASSESSMENT

1. Overall participation (attendance, active participation, effort, creativity and innovation) (50% of the grade)
2. Working within your appointed group (or individually), complete a **poster** for the UConn Frontiers in Undergraduate Research 2026 event

(https://ugradresearch.uconn.edu/frontiers/) held on **Wednesday, April 15, 2026** in the Wilbur Cross north reading room on the Storrs campus. The first author of each poster is responsible for submitting the final version to the instructor via email by the **end of day Wednesday, April 1st** (20% of the grade).

3. Each student is to present a 10 min presentation of the key points captured in the poster submitted by the student (**presentation date Friday April 24th**) (20% of the grade).
4. Each student is required to attend all student poster presentations and is to prepare and submit to the instructor a short review (poster presentation title, comments, and suggestions in bullet form) for each poster presentation. The instructor will compile, anonymize and distribute the review to each student **(submission deadline Thursday, April 30th)** (10% of the grade).