

WWU Chemistry Department
Undergraduate Research Program

The WWU Chemistry Department offers a broad spectrum of research projects for the undergraduate student, beginning as early as the sophomore year. Many of our graduating seniors leave not only with a degree from the department, but with experience as a member of a research team made up of both graduate and undergraduate students, led by a faculty member.

The undergraduate research student often includes presentations of research results at local and/or national professional meetings and appearances as co-authors on professional research publications. It is a unique opportunity to develop skills as a professional chemist/biochemist and is highly valued by both potential employers, graduate schools, and health science programs (medical, dental, pharmacy).

Undergraduate students interested in conducting research under the direction of a chemistry faculty member should:

1. Meet all prerequisites for research courses: CHEM 201, 301, 401. (See the listings on the next page.) The most common time to consider application to a research group is after completion of either organic lab (CHEM 354) or analytical lab (CHEM 333).
2. Identify a research area of interest with a particular faculty member. Check out the individual faculty web pages at the department's web site (<https://cse.wvu.edu/directory/chemistry>) to obtain information concerning current research interests of chemistry/biochemistry faculty.
3. Contact the faculty member to discuss the possibility of joining his/her research group. Some faculty will formally advertise openings in their research groups. Others accept students throughout the year, dependent on "space available."
4. After acceptance to a research group, during the registration period, pick up an "Undergraduate Research Permission Form" from the office. It must be completed with the assistance of your research advisor and returned to the department office before you can register for any research courses.

Undergraduate Research Courses

The majority of undergraduate students perform research for university credit. Each "credit" of research equates to 3 hours of research work per week over the ten week period of the quarter. Thus registering for 1 credit obligates you to 30 hours of work for the quarter, 2 credits to 60 hours, 3 credits to 90 hours.

In order to register for any of the research courses below, you must complete an "Undergraduate Research Permission Form" during the registration period **each quarter** and meet the eligibility requirements. The forms are available in the department office (Chemistry Building 270).

Research Courses Available:

CHEM 201 Independent Research (1-3 cr). Prereq: CHEM 351 or concurrent and permission of instructor. Undergraduate research under supervision. Written report required. S/U grading. Repeatable to a maximum of three quarters.

CHEM 301 Independent Research (1-3 cr). Prereq: 30 credits in chemistry and permission of instructor. Undergraduate research under supervision. Written report required. S/U grading. Repeatable to a maximum of three quarters.

CHEM 401 Independent Research (1-3 cr). Prereq: CHEM 461 or concurrent and permission of instructor. Undergraduate research under supervision. Written report required. S/U grading. Repeatable for a maximum of three quarters.

CHEM 405 Intensive Writing in Chemistry/Biochemistry (1 cr). Prereq: CHEM 401, CHEM 425, CHEM 471, CHEM 494 or 498 or concurrent; and permission of instructor. Concentrated study of associated topic and a substantial expository paper.

CHEM 498 Honors Research in Chemistry (3 cr). Prereq: 6 credits of chemistry research courses, advancement to departmental honors candidacy (application required). Oral presentation and honors thesis required. S/U grading.

On occasion, a student's research project may extend beyond the available formal courses. The student then has the option of:

- 1) Continuing research as a "volunteer"

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- 2) Continuing research under independent study (CHEM 400). Check with the department office for more details if you require one of these options.