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 with not only 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 experience 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 program (medical, dental, pharmacy).

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

1) Meet the minimum requirements as described in the prerequisites for research courses--CHEM 201, 301, 401. (See the listings below) The most common time to consider application to a research group is after completion of either Analytical Chemistry Lab (CHEM 333) or the first Organic Chemistry Lab (CHEM 354).

2) Identify a research area of interest with a particular faculty member. To do so, go to the Chemistry Department website and click on “Research Opportunities.” Two resources are available. You'll find more detailed research information for each research group is usually available under the specific faculty member’s individual website, reachable from the department home website.

3) Contact the faculty member to discuss the possibility of joining their research group. Acceptance procedures vary among the research groups. Some faculty research supervisors will formally advertise openings in their groups, usually during February and March so that new members begin research in the upcoming spring quarter. Others accept students throughout the year, dependent on space available. All are happy to conduct informational meetings about their research group, whether openings are immediately open or not.

4) Registration Process for Research Credit: In order to register for research course credit each quarter, you must complete an Undergraduate Research Permission Form with the assistance of your research advisor. Return the completed form to the department office before the last day of Phase III Registration to obtain a registration override. The registration permission form is available in the department office.
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, and 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. The forms are available in the department office (CB270).

Research courses available:

CHEM 201 Independent Research (1-3 cr)
Prerequisite: 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)
Prerequisite: 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)
Prerequisite: 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 498 Honors Research in Chemistry (3 cr)
Prerequisite: 6 credits of chemistry research courses, advancement to departmental honors candidacy (application required). Oral presentation and honors thesis required. S/U grading.

The above research courses cover a maximum of 9 quarters of activity, if you begin with Chem 201, or a maximum of 6 quarters of activity, if you begin with Chem 301. On occasion a student research project may extend beyond the available formal courses. The student then has the option of:

1. Continuing research as a “lab volunteer” or
2. Continuing research under independent study (Chem 400). Check with the department office for more details if you require one of these options.