

CHEM 195 Research Practices in Chemistry

Friday 3:00 – 4:20 pm, ISC 1127, Fall and Spring, 0 credits (Pass/Fail)

Coordinator: Prof. Bebout, dcbebo@wm.edu

All undergraduate participants in the optional research activities of the Chemistry Department (CHEM 190, 290, 390, 490, 495 & 496) share responsibility for creating a safe and ethical work environment. The department is using enrollment in CHEM 195 to ensure that each student choosing to engage in our research program has appropriate initial training.

ENROLLMENT

Enrollment in CHEM 195 is open to all W&M students. Co- or pre-enrollment in CHEM 195 is required for participation in all Chemistry Department research courses unless a student is co-enrolled or has credit for CHEM 320. ***Students enrolled in CHEM 190, 290, 390, 490 or 495 not meeting this requirement at the end of add/drop will be dropped out of their research course by the Registrar.***

ATTENDANCE

During Spring 2018, attendance is ONLY REQUIRED for safety training Jan 25 (unless they have had Chemistry Department safety training since May 2018). ***Students missing the required training sessions will be given an Incomplete.*** Attendance is strongly encouraged but optional all other weeks.

LABORATORY SAFETY AND ENVIRONMENTAL HEALTH TRAINING ON JAN 25

Research participants MUST attend a departmental laboratory safety and environmental health training session BEFORE initiating laboratory research activities. Departmental training sessions are held the first Tuesday of Summer Session I and before the end of add/drop each Fall and Spring semester. Chemistry safety training must be renewed annually starting in May. Safety training from other departments cannot be substituted for Chemistry Department safety training. Students missing the Chemistry laboratory safety and environmental health training session may be barred from laboratory research until the following semester. *Sign in at a departmental safety presentation held May 2018 or later is required to pass course.*

RESPONSIBLE & ETHICAL CONDUCT OF RESEARCH

The second required component of CHEM 195 is completion of the Conflict of Interest and Responsible and Ethical Conduct of Research modules offered through the CITI program. Instructions for CITI program registration and completion document submission are posted as Blackboard/Assignments. The modules must be completed before the end of the Spring semester to pass CHEM 195.

ADDITIONAL OPTIONAL RESEARCH & PROFESSIONAL DEVELOPMENT OPPORTUNITIES

FACULTY RESEARCH OVERVIEWS

The research active Chemistry faculty present overviews of their research programs and anticipated openings early each Fall semester as part of our department seminar series (Fridays September 14, 21 & 28, 3:00-4:00 pm). Students seeking new or different research positions are invited to attend. There will also be an opportunity to meet current students in each group at a poster session October 5 from 3:00-4:20 pm in the ISC III Atrium. Alternatively, our website has a list of faculty research interests sorted by area (www.wm.edu/as/chemistry/faculty_research_areas/index.php) and many faculty have detailed websites highlighting their research activities.

STUDENT RESEARCH OPPORTUNITIES IN CHEMISTRY

Research active members of the Chemistry faculty individually recruit undergraduates to meet the needs of their ongoing research programs. Enrollment in our research course (CHEM 190, 290, 390, 490, 495 & 496) requires a commitment of roughly 4 hours/week/credit. We also operate a full-time ten week summer research program coinciding with W&M's summer session. Students seeking research positions should use the faculty research talks, faculty websites and peer networks to identify faculty conducting research of interest. Initial contact with faculty is commonly done by e-mail or during faculty office hours at least one semester before starting active participation. Volunteer participation may be possible after completing safety training at the discretion of faculty.

Interest in faculty-sponsored research is high and therefore placement is competitive. Individual faculty take many things into consideration when selecting students including, but not limited to, academic performance, laboratory coursework completed, related experience, level of enthusiasm for their specific research program, scheduling and the distribution of ongoing students in their labs. Labs vary in size based on issues such as current funding, safety concerns and instrumentation limitations. Students are expected to develop a level of thoughtful independence while collaborating with faculty, however the department does not provide support for student-initiated research.

Individual faculty provide additional safety training tailored to the specific nature of activities in their research laboratories. At the discretion of individual faculty or the administration, students may be required to attend a refresher departmental training session to retain the privilege of research participation.

STUDENT FUNDING FOR RESEARCH

Department support: Students chosen by Chemistry faculty for participation in our full time 10 week summer research program are typically paid a \$3600 stipend and eligible for free dormitory housing.

Monroe Scholars and other Charles Center Summer Research Grants: The Department supplements student summer research awards up to the department level for students working full time for the ten week summer research program.

Conference funding: Conference funding applications are accepted four times a year. For more information see www.wm.edu/offices/studentleadershipdevelopment/funding/conferences.

DEPARTMENT SEMINAR PROGRAM

Outside speakers from academia, industry and government regularly visit and contribute to our department seminars series on Fridays from 3:00-4:20 pm. The department invites research active students to meet with the speaker for lunch in the second floor lobby. See posted flyers for more details.

HOMECOMING ALUMNI PANEL

Advice, discussion and perspective for life after W&M from several Chemistry alumni on October 19, 2018 from 3:00 – 4:20 pm in ISC 1127.

RESEARCH SYMPOSIA

The Charles Center (<http://www.wm.edu/as/charlescenter/>) coordinates several interdisciplinary research symposia throughout the year for undergraduates to present research conducted at either W&M or other institutions. The entire W&M community is invited to attend.