

SEE-Beyond Opportunities in Chemistry and Biochemistry

Program Goals

As outlined by the Skidmore College Office of Academic Advising, Summer Educational Experiences—Learning Beyond the Campus (SEE-Beyond) Awards invite you to explore new techniques, technologies, or modes of inquiry or expression; to apply your academic-year learning to real-world challenges; and to clarify the interrelationship between your educational and post-baccalaureate goals. Awards may be used to support:

- Field or laboratory research in an area of your choice, with the permission of the host institution and research sponsor.
- Internships with clear learning goals that complement your academic plan.
- Residencies, workshops, apprenticeships, or productions.

This list is neither exhaustive nor prescriptive. The Chemistry Department supports any experience that puts your classroom learning into practice, or that deepens your knowledge or understanding of chemistry or biochemistry.

Provisions

Each awardee will receive a \$4,000 stipend to cover participation fees or tuition, travel expenses, and summer room and board. SEE-Beyond Awards may be used to access opportunities anywhere in the world, except in countries with State Department travel warnings or advisories. Participants serve as ambassadors for Skidmore in their chosen off-campus environment, and are expected to contribute their experiences and insights towards enriching the Skidmore community following completion of the Program.

Application Process

As a Chemistry major, you are encouraged to submit a brief application to the department that includes a proposal describing your anticipated summer experience and how it fits your educational goals at Skidmore and beyond, as well as your experience level. The department will select nominees to put forward into a college-wide competition, based on the substance and feasibility of the proposed activity, your explanation of how the activity relates to your Chemistry major, and on whether your performance in chemistry classes has indicated that you are capable of successfully pursuing what you have proposed. You must have officially declared a major in the department by the time of your application.

Developing a Project

Many projects appropriate to Chemistry majors will likely hinge on commitments from a supervising principal investigator or mentor at the hosting institution or agency. The structure of scientific research is well suited to collaborative training opportunities such as those promoted by SEE-Beyond; however, individual investigators tend to be heavily committed, particularly during the summer. Therefore, the department encourages you to identify possible mentors and reach out to them about the possibility of hosting your project as early as possible. Consider consulting Skidmore faculty, the Alumni Affairs office, and the Career Development Center for possible contacts to help develop your ideas.

It is appropriate to seek faculty guidance in developing your proposal; however, the committee will be particularly interested in how you have personalized your plan. Consider the suggestions on reverse as inspiration for possible projects to be tailored to your specific goals. Keep in mind, thanks to the international context of scientific research, that appropriate opportunities in all areas may exist both within and beyond the United States.

Possible Resources for Chemistry Majors (please note, links may change over time---if direct links below do not work, try searching on the keywords):

1. Travel to an academic or industry research group to pursue research related to previous work in a Skidmore or other laboratory.
 - Current or former participation in summer programs such as National Science Foundation Research Experiences for Undergraduates may be an indication of interest and experience hosting students (http://www.nsf.gov/crssprgm/reu/reu_search.jsp).
 - Even in the absence of formal opportunities, many research faculty can accommodate summer volunteers, particularly with personal recommendations or connections to their research.
2. Enroll in a summer intensive training course, such as or similar to benchmark programs offered by Cold Spring Harbor Laboratory (<http://www.cshl.edu/education/urp>), to further develop specific technical skills. Many programs are intended for graduate students, but may consider undergraduate enrollees with strong interest or experience, particularly with their own funding.
3. Explore the policy or business implications of chemistry by interning in a new company or professional society. Consider internships listed on the American Chemical Society website (<http://www.acs.org/content/acs/en/education/students/college/experienceopp.html>), or seek out your own.
4. Pursue formal outreach or other interdisciplinary aspects of science, for example by volunteering with an active program such as the UCSF Science & Health Education Partnership (<http://biochemistry.ucsf.edu/programs/sep/>).
5. Develop science communication skills by interning or collaborating with a staff or freelance journalist for a newspaper or scientific journal. Many placements such as those listed on Nature Jobs are intended for postdoctoral scholars, but may be worth contacting (<http://blogs.nature.com/naturejobs/2013/01/28/getting-an-internship-in-science-journalism>).
6. Teach science to younger students through a short-term summer program, such as those listed on the American Association for the Advancement of Science Education portal (<http://www.aaas.org/programs/education/SSE/activities/othervolunteer.shtml>).

Institutional Contacts

For more information about departmental recommendations for SEE-Beyond applicants, please contact Professor Reba Howard (rhoward@skidmore.edu) in Dana 218.

For information about previous participants and campus-wide considerations relating to SEE-Beyond, visit the SEE-Beyond website (<http://www.skidmore.edu/see-beyond/>) or contact Kim Marsella (kmarsell@skidmore.edu) in the Office of Academic Advising.