



Program Overview

Introduction to Saturday Academy

The ASE Program is part of Saturday Academy, a 501(c)(3) non-profit organization started in 1983. Saturday Academy programs are pre-college, extracurricular learning experiences delivered by community professionals. These professionals share facilities, equipment and expertise through hands-on classes, workshops and internships in order to augment the curriculum of the school systems in the areas served by Saturday Academy. Saturday Academy places special emphasis on the sciences, math and technology. Students from groups traditionally underrepresented in these fields are actively recruited and supported.

ASE Program Background

The ASE Program was initiated in 1990 to address a growing concern over the quantity, quality and cultural/gender diversity of our nation's future technical and scientific workforce. ASE has grown from 36 student apprentices in the first year to 128 students in the Summer 2011 program. Now in its 23rd year, the program has provided more than 3,000 students with hands-on eight-week internships with practicing professionals in science and engineering disciplines. These students have been drawn from a pool of over 10,000 applicants from Oregon and SW Washington.

ASE Program Description

The ASE Program provides a complete educational experience beginning with the application process. The internship is complemented by workshops for student applicants, an orientation for students and mentors, and two program conferences: the Midsummer Conference and the ASE Symposium. The following are the major elements of the ASE Program:

Internship: The heart of the ASE Program is the internship in which a student works with one or more scientific, engineering and technical professionals who serve as mentors for the equivalent of eight weeks full-time during the summer (a total of 296 hours at the mentor's organization). The intern helps his/her mentor and gains first-hand pre-professional experience in a particular scientific or engineering career, including an introduction to the environment and tools used within that profession. Some interns work on a project they can bring to closure by summer's end, some contribute to an ongoing larger project, and some are given several smaller projects and tasks that represent the range of work of many scientists and engineers.

Midsummer Conference: This one-day conference is held on a college campus. The major purpose is to deliver supplementary program activities, build group cohesion and provide opportunities for both formal and informal contacts with peers and practicing professionals. Students are introduced to science disciplines outside of their respective internship assignment via seminars and workshops conducted by professionals. They also are provided with sessions on preparation and delivery of technical presentations, college selection, and other topics to help prepare them for a technical career. Finally, students have a chance to experience life on a college campus before beginning the college application process.

ASE Symposium: The Symposium is the culminating event of the ASE summer program. Interns convene on a college campus for one day to present their summer's work through a poster session and a 15-minute oral presentation to other interns, mentors, parents, teachers and special guests. This enrichment activity is designed to broaden the technical exposure of students and improve their speaking and presentation skills. The presentations are conducted so that students review and ask questions of peer's projects and conclusions. Over 20 professionals volunteer as session moderators for the student presentations. The Symposium is the critical learning event of the summer and enables the students to organize and synthesize their eight weeks of experiences.

Academic Credit: Saturday Academy provides documentation of each intern's summer experience to their respective high schools for elective science credit. Most high schools provide one to three credits for a successfully completed internship. Many students have also gone on to extend their summer's work by entering their projects in science fairs and contests.

ASE Program Participants

Students: High school freshmen, sophomores, and juniors submit application forms, recommendation letters and transcripts. After reading descriptions of available positions, they apply to their top three choices by writing an essay describing why they would like each particular position. Applicants typically out-number available positions by a ratio of four-to-one. Each mentor receives the application packages of all students interested in his/her position and many mentors choose to interview their top candidates. ASE offers free Essay Writing and Interview Skills workshops to all applicants. Interns are selected by the mentors.

Mentoring Organizations: Mentoring organizations are those who utilize science and engineering disciplines in the conduct of their business or mission. They develop eight-week internship positions with an emphasis on the application of science and math to real-world projects. They fund the \$3,200 cost of student participation and the attendant cost of a mentoring scientist or engineer. Mentoring organizations provide office or laboratory space, facilities, equipment, reference materials, training, instruction and orientation necessary for interns to carry out assignments. Many participating mentors report that the value of the student's summer work exceeds the program cost.

Mentors: Mentors are dedicated practicing professionals who develop and deliver the eight-week internship experience. Some mentors also conduct workshops and career sessions at the Midsummer Conference and moderate student presentations at the ASE Symposium. ASE mentors are committed to the education and training of the next generation of professionals and are a key component of the ASE Program.

Teacher Monitors: Internships are supervised by experienced teachers and other qualified individuals who visit the internship site during the summer to observe and interview both interns and mentors. Eight to fifteen teachers are hired part-time each summer to serve as liaisons for both interns and mentors. Teacher Monitors facilitate student adaptation to the work environment, solve any problems that are identified, and assist with program evaluation. Teacher Monitors experience the breadth of science and engineering careers in the geographical area in which they serve and typically use their experience in delivering more relevant and in-depth classroom instruction during the school year.

Further Information: For more information about the ASE Program, please consult our web site at www.saturdayacademy.org\ASE or call 503-200-5860. We can also be reached by email at ase@saturdayacademy.org.

