



Saturday Academy's
Apprenticeships in Science & Engineering
Mentor Handbook

2025

Program Manager: Allison Fritts-Penniman

Program Coordinator: Rey Browning

Contents

- Introduction
- The Mentor's Role
- Mentor Expectations
- ASE Commitment to Equity
- Position Descriptions
- Applicant Selection Process
 - Ranking Intern Applicants
 - Matching Process
- Intern Onboarding
 - Intern Calendar
- Mentor Orientation
- Intern Start
 - Project / Work Plan
 - Student Tools
- Teacher Monitors
- Site Visits
 - Initial Site Visit
 - Final Site Visit
- Intern Conferences
- Symposium
 - Presentation Components
 - Oral Presentation
- Final Deliverables
- Intern Stipend
- End of Summer Packet

Introduction

The Apprenticeships in Science & Engineering (ASE) program connects motivated high school students with mentors in science, technology, engineering and math (STEM) pre-professional internships.

Internships are four to eight week, full-time or part-time summer positions, designed by mentors themselves. These internships take place throughout Oregon and Southwest Washington, including Portland, Eugene, Corvallis, Vancouver and historically, Bend, Klamath Falls, Colton, and McMinnville. Mentor organizations include universities, hospitals, research institutions, and private companies. The application process is competitive, with more than 400 applicants each year for 50-100 positions. ASE internships attract rising sophomores, juniors and seniors from throughout the Northwest.

Roughly 70% of interns are from backgrounds underrepresented due to systemic exclusion in the sciences, including students who identify as Black, Latino/a/x/e or Hispanic, Native American, Native Alaskan, Native Hawaiian, Pacific Islander, or genders other than cis-male. ASE interns have been listed on published research, helped to design and test commercial products and spent countless hours in the field and in the lab.

There is a program fee associated with participation with the ASE program as a mentor, from 0 to \$4,000 on a sliding scale. This fee covers the cost of the intern stipend, the conferences (keynote speakers, panelists, venues, rentals, transportation), and program support (staff, application management & processing, mentor/mentee matching, applicant workshops, onboarding, insurance, end of summer packets, website governance). Mentors concerned about the fee should speak to program staff as soon as possible - alternative funding may be available for your internship.

In 2025 we are implementing a new tiered system for aligning the number of student hours with their stipend. Mentors decide with ASE staff how many hours their internship will be when creating the internship for the ASE Application. The options are:

- 100 total hours - \$500 stipend
- 200 total hours - \$1000 stipend
- 300 total hours - \$1500 stipend

The Mentor's Role

An ASE Mentor has some key responsibilities as part of their participation in the ASE Program. Namely, advancing the following objectives through the execution of Program Expectations:

- The internship environment is inclusive and equitable, where learning is the priority. Experiences are inclusive to all students regardless of gender identity, race, ethnicity, religion, disability, skill level, or any other need / identity / affiliation.

- Projects / Work plans have clear goals, expectations, scope, and timelines, and interns have access to adequate resources, tools, time, and training to accomplish the desired outcomes.
- Mentors, co-mentors, administrators, or any other adult involved in the internship communicate with ASE as soon as need arises for extra support or resources.

Mentor Expectations

The ASE Program depends on its dedicated mentors to execute valuable programming for every cohort of interns. In order to promote a consistent and positive experience for all intern participants, ASE establishes Mentor Expectations which all mentors must agree to as contingent to hosting an intern. Mentors should see the [Mentor Expectations document](#) for specifics.

ASE Commitment to Equity

Saturday Academy is dedicated to working towards a society without systemic disadvantages based on race, ability, age, gender expression and identity, national origin, religion, sexual orientation, and socioeconomic status. Please read Saturday Academy's Equity Statement.

In order to create an environment of inclusivity and belonging from the beginning, ASE requires the following invitation to be included in all position descriptions:

We strongly encourage students to apply who are from one or more systemically and historically excluded group, including but not limited to, non-cis-gendered students, girls, BIPOC, first-generation college bound students, low-income/low-resourced students, students with disabilities, who are neurodivergent, and those who speak a primary language other than English

An aspiration of the program is that each student feels a greater sense of belonging in STEAM learning environments and STEAM careers. As someone who interacts with interns daily, ASE has high expectations for mentors, co-mentors, and support staff to respect and embrace the diversity of each student.

As part of the onboarding process, ASE staff encourage all mentors to learn more about why equity is important to student success, and how they can create an inclusive learning environment. This training is completed at the ASE [Mentor Equity Resources Webpage](#).

Position Descriptions

In fall, ASE staff begins compiling Position Descriptions to be posted to the website at the time of the application opening. The position description should include the following elements:

- A title for the internship position
- A description of the position
 - The description should include a brief introduction to the hosting organization's mission or purpose, an outline of what project(s)/research/work the intern can expect to contribute to (even if not specific / finalized), and the skills the intern can expect to learn by the end of summer
- The disciplines involved in the intern summer project
- How many positions are available within this position description
- The name of the hosting organization
- The internship hours (part time 100, part time 200, full time 300)
- The internship location type
 - The internship location type could be one of the following: In-person, Remote (available for part time only), Hybrid (some remote elements, some in-person elements)
- The funding expected to be provided by the hosting mentor organization
- The location of the internship (Street, City, State, Zip)
- Any specific onboarding instructions that the hosting organization would like to provide the intern or the mentor
- Any prerequisites the hosting mentor organization would like to implement for their position
 - Prerequisites can include age requirements, grade requirements, gender requirements, demographic requirements, citizenship requirements, skill requirements, class completion requirements, and ethical requirements (example, comfort with animal research or end of life care).

Submission, edits and approval of the position description should be sent to ASE staff. March 31st is the final deadline to submit a position description for consideration for a summer ASE intern.

Applicant Selection Process

The ASE application opens in early January and closes each year in early March. ASE staff dedicate significant time to communicating with local schools, community organizations, career counselors, and teachers to share information about the ASE program.

The application consists of the following elements; Student Basic Information Section, Position Ranking Section, Cover Letters, Transcript Upload, 2 Adult Recommendations, and a \$40 application fee (fee waived for all students who qualify for free and reduced lunch programs). Mentors may use any of this information when establishing rank among their applicants.

Upon submission of their application, ASE Staff processes the application for completeness and eligibility, before forwarding a packet of candidates to mentors. Mentors have 3-4 weeks to evaluate, interview, rank, and submit their top choices of applicants.

Ranking Intern Applicants

Upon receiving the student applicant packet, mentors are welcome, and encouraged, to conduct interviews with their top intern candidates. All employment discrimination protections apply to interns, so mentors should avoid asking any prohibited questions about protected classes during interviews or interactions with candidates. For additional resources on employment discrimination and protected classes, mentors should contact ASE staff.

ASE Staff strongly encourages mentors to conduct interviews early in the ranking window - it allows mentors to communicate any additional requirements to the intern, clarify project plans and outcomes, and get a sense for the personality and motivation of the student.

When ready, mentors rank only the students they would be comfortable mentoring in the order of preference of choice.

- As a general rule, it is best to rank at least 3 students per available position.
- Rankings are not saved in the dashboard when the user logs out and logs back in, so mentors should make note offline if they plan to revisit the rankings at a later time.
- Once rankings are submitted, mentors will wait to be matched with an intern.

For specific information on website navigation to rank internship applicants, mentors should visit the [ASE Intern Selection & Mentor Dashboard Guide](#).

Matching Process

To match positions, ASE compares mentor preference rankings to intern preference rankings and finalizes those matches. ASE staff balances 3 priorities while making matches; overall number of possible matches, mentor preferences, and student preferences.

Mentors will then be notified via email when their intern accepts their position offer. Information on next steps as well as intern contact information will be included in this email.

Intern Onboarding

Once mentors receive intern contact information and interns receive the mentor contact information, the most important next step is establishing what is required for the intern to be onboarded. Mentors should work with their hosting organization to clarify what is required of a student intern prior to start

date and communicate that as soon as possible to their student (if a background check, medical clearance, or other extensive onboarding is required, this should be communicated as part of the position description in winter). ASE Staff will support and shepherd students through each organization's onboarding processes, if assistance is necessary.

The ASE Program has separate onboarding processes required of each intern, which includes collaborating with their mentor to establish an Intern Calendar.

Intern Calendar

Accepted applicants are asked to contact their mentors immediately to begin to plan their summer calendar using the template calendar provided by ASE staff. The calendar will designate potential start dates, the latest possible end date, as well as any conference dates & holidays on which intern hours should be avoided. Interns should also account for, and communicate to mentors, any additional time needed for onboarding processes, doctor appointments, anticipated vacations, time necessary for transportation, etc.

The calendar will assist interns and mentors in meeting the expectation of time spent at the hosting internship organization (e.g. 100, 200, 300 hour tiers). These hour counts do not include ASE Midsummer Conference or the ASE Symposium.

While the calendar only asks that interns list the amount of anticipated hours spent at the hosting organization for each working day, the intern and mentor should set an anticipated working schedule (weekly routine for start /end time and location) at the time of the calendar completion. If changes are needed at a later date, the mentor and intern (and Teacher Monitor) can discuss a new schedule that fits both parties' needs.

Mentors should be responsive and active in the collaborative creation of the intern calendar.

Mentor Orientation

Mentors should plan to attend ASE Mentor orientation in late May. The purpose of orientation is to discuss best practices for mentorship, learn about annual program specifics, engage with mentorship / personal / professional development materials, and connect with other program mentors.

Intern Start

Interns are asked to be in contact with their mentors two weeks in advance of their planned start dates to discuss the following:

- What time should I plan to start on my first day?

- Will I be starting virtually or in person?
- If starting in person, what address and location should I go to? Do I need to access any secure areas? What should I bring with me? Is there parking available or should I plan for alternate transportation? How will I let you know I have arrived or where will I meet you?
- If starting virtually, do I need a link for a meeting with you to start? Will I need to be able to access a certain server or email address? Is there any tech that I may need to prepare for or pick up from the organization?
- Is there anything I need to do in advance to prepare for the first day?
- Is there anything I should know about the office / lab / workspace before I start, such as company culture, dress code, lunchtime traditions, or meeting culture (Zoom cameras on/off)?

Mentors should plan to be responsive and active in the process of preparing and welcoming the student to the workspace.

In the first weeks, mentors can expect interns to be uncomfortable and nervous, but creating a welcoming environment that encourages the students to learn and meet others will bring the best results in helping the students build confidence.

ASE Staff recommend setting a work plan with students in the first few days, with input from the intern. Mentors should plan to introduce interns to their workspaces, resources, colleagues, and anything else that may prove helpful to the intern in their first few weeks.

Project/Work Plan

A project plan may include the timeline, outcomes, training and methods needed to achieve an outlined project within the scope of an ASE internship. Specification of duties and responsibilities of the interns with clear guidelines, access to resources, and timelines is an expectation of mentors as part of the ASE Program, and mentors may find it beneficial to organize this into a plan. See ASE's [example work](#) plan as a guide.

Student Tools

Students should be given access to and training in all necessary tools, resources, and software needed to successfully complete their work. If a student does not have access to the basic required tools (a computer, basic office supplies, etc.), and the hosting mentor organization is unable to provide these tools, Saturday Academy is able to loan these resources to the intern for the duration of the internship. Mentors or interns should contact Saturday Academy staff as soon as they become aware of a need so it can be addressed as quickly possible.

Teacher Monitors

ASE hires local high school teachers to act as the first point of contact for students and mentors. Teacher Monitors are intended to help bridge the gap between mentors (adult professionals) and interns (high school students), if needed, being educators at the high school level.

Interns and mentors alike should contact their Teacher Monitors at the first sign of a concern, miscommunication, or question. Teacher Monitors are able to provide resources, resolutions, or new perspectives to a situation. If necessary, they will advocate for the intern to the mentor directly, and vice versa. The Teacher Monitor will work to ensure they advocate for all parties as they feel most comfortable & with their permission.

It is extremely important that mentors contact their Teacher Monitor as soon as additional resources or support for the students are needed. It is much more difficult to correct situations late in the summer, or after the summer has ended.

Examples of situations that Teacher Monitors can help with:

- Intern misses a meeting and/or is not responding to email or phone calls
- Intern is visibly upset at work and does not want to talk about why
- Intern is struggling to keep up with your expectations and you would like advice on what to do

In addition to responding to needs as they arise, Teacher Monitors are responsible for conducting two site visits with each mentor and intern pairing, collecting thank you letters at the end of summer, and presiding over Symposium presentation rooms.

Site Visits

Interns and Mentors are required to participate in two site visits as part of their participation in the program - the initial site visit and the final site visit.

Initial Site Visit

The intention of the initial site visit is to check on the intern and mentor approximately two to three weeks into their internship. It also helps ASE Staff set initial quantitative benchmarks for outcomes from ASE student interns.

This helps the Teacher Monitor identify any glaring issues in the pair, as well as help identify goals, next steps, and opportunities. It also gives individual time to both the intern and mentor to discuss their concerns or questions, if any.

Teacher Monitors attempt to conduct the initial site visit in person, and if permitted, take pictures of the intern and mentor(s) conducting their daily activities. If the visit cannot be

conducted in person, the Teacher Monitor will request video calls from both the mentor and intern, as well as photos of the intern from staff at the hosting mentor organization.

Additionally, Teacher Monitor will collect names from mentors of any co-mentors or other contributors involved in the internship for reporting purposes, as well as recognition by the ASE Program and Thank You Letters from the intern.

Final Site Visit

The intention of the final site visit is to collect final feedback from interns and mentors, ask about final contributions to the project at the hosting organization, as well as collect data regarding student outcomes.

If this visit cannot be conducted in person, the Teacher Monitor will request video calls with both the intern and mentor.

Intern Conferences

There are 2 required conferences for interns throughout the summer. Midsummer conference, which takes place in July, and Symposium, which takes place in August. Intern attendance is required at both conferences, and internship hours should not be planned on either conference date. Midsummer Conference is intended to introduce interns to other interns, as well as professionals in various fields, and introduce them to key concepts about Symposium and end of summer deliverables and expectations.

Midsummer conference is intended for interns only and is not open to the public or other members of the ASE program (such as parents/guardians, mentors, donors, etc). Symposium is considered the grand finale event of the summer and gives interns the opportunity to present their work in a conference-style format and is open to the public.

Symposium

The Symposium is the final major event of the ASE Program. It represents the culmination of the summer internship activities. All ASE interns will join the conference to share their eight-week summer work experiences. Each intern will present their summer's work through an oral presentation to other interns, their teacher monitor, Saturday Academy staff members, Saturday Academy Board Members, donors, and whichever mentors and parents attend the event.

The Symposium is a critical learning event of the summer. It requires interns to organize and synthesize their work at the internship. Interns will learn to present a concise overview of the technical area in which they worked, prepare a presentation, and confidently speak in large public forums.

Intern responsibilities leading to the event include registering for the event, planning their presentation (including naming their project), and working with their mentor to ensure the hosting organization is represented positively. Mentor responsibilities include supporting the intern in this preparation, including but not limited to:

- Review Symposium presentation and preparation requirements
- Develop Symposium presentation title
- Develop presentation outline
- Review presentation presentation
- Discuss opportunities for presentation storage (UP Library Digital Repository)
- Give feedback on Oral presentation delivery after practice delivery
- Ensure all propriety or classified information is removed from presentation (if applicable) as presentations are recorded and posted to the internet

ASE Staff encourage Mentors to attend Symposium, in its entirety if possible, and ask questions of their own interns and others to increase participation in the Symposium.

Presentation Components

Oftentimes, interns follow the narrative model, or the “what I did” model. This style of presentation allows for students to easily share information about what they did this summer, as well as information about skills gained and research conducted.

The following components should be included in the intern’s Symposium presentation

- *Introduction & Background:* Interns should introduce and briefly describe the internship’s discipline and hosting organization. They should describe the areas of the mentor’s organization that they have been exposed to, discuss the ways that the mentor’s organization is involved in the community, and describe some of the practical uses of the knowledge or technology being developed by the professionals in this field. However, interns should keep this section brief to focus on subsequent sections.
- *Methods, Procedures, or Concepts Explored:* This section should explain what activities the intern did during their internship and why each was important. Diagrams and flow charts that illustrate the steps of processes learned, or that show how each area of the field is related are effective, as are pictures of the work being conducted. Interns should include a description of each part of their internship project or investigation and explain their research in enough detail so the audience understands what they did, how they did it and what they learned. If results or outcomes were achieved, the intern should also include this information.
- *Next Steps:* This section discusses the future of the career area the intern has worked in. The intern should explore questions such as: what are next steps for the project worked on?, where is this line of work heading?, are there new areas of expansion or new products or projects that are under development?, what employment prospects are

there for others interested in this field?, how does the intern think they'll benefit from their exposure to this industry or career area?

- *Acknowledgements & Recognition:* Interns should include a brief statement recognizing their mentor, mentor organization, Saturday Academy and anyone else who contributed to their internship. Interns should include the Saturday Academy logo, and their hosting organization's logo if possible.

Oral Presentation

At the ASE Symposium, each intern will give an oral presentation. Depending on the format of Symposium, Each presentation will take place in a “break-out” room with an audience of ~9 interns, a teacher monitor or room presider, a Saturday Academy staff member, and invited mentors and family members. Interns have the option to give their presentation with a partner intern.

During the presentation, interns should include (at minimum) the components listed above. The audience will include individuals with and without technical expertise. In order to communicate well with both groups, interns should ensure their presentation is logical and easy to follow, with clear messaging. As such, interns should plan to keep their Symposium titles concise, and elaborate as part of their presentation.

Interns should include graphs, tables and other illustrations that will help explain the project. Interns should exercise good judgment in determining the number of visuals used and try to balance their contents (some text, some graphics) as to not overwhelm the audience with too many graphs or complex tables. Visuals should be interpreted to the audience.

Interns should avoid jargon or technical terminology that the audience may not understand. Essential terms should be described to the audience.

All presentations end with a Question & Answer session. Questions should be answered respectfully, fully, and to the best of the interns ability. If the intern does not know the answer, ASE Staff encourages students to acknowledge that area needs to be investigated further. If the mentor is present and would like to assist the intern with information that was outside the scope of their project during the Q&A session, they are welcome to do so.

The presentation should be practiced enough that reading note cards is not necessary. The presentation should convey enthusiasm and interest, as well as knowledge of the project or investigation.

Final Deliverables

ASE Staff requests materials from interns to close the summer program. These include:

- Thank You Letters
- Internship Summary Submission
- Symposium Registration
- Symposium Presentation (see previous section)

These materials are required in order for the student to receive their final stipend check. ASE Staff reserve the right to ask for additional materials from the interns throughout the summer.

Mentors have no responsibilities associated with the administration, management, or collection of these deliverables.

Intern Stipend

All interns are paid a stipend or wage as part of their participation in the ASE program. This expense is covered as part of the mentor program fee, unless otherwise organized with ASE staff as part of the position description composition.

Interns hosting organizations who chose to pay interns directly instead of disbursing it through ASE receive no compensation from Saturday Academy for the duration of the summer. Oftentimes, mentor organizations opt to pay an intern directly if their policies dictate they must pay interns a wage. Students are notified of their form of payment (wage / stipend) as part of their official offer letter.

The stipend is intended to cover costs associated with the ASE program (such as clothing, transportation, lunch food, materials) and is not intended as a salary or wage. Interns are not considered employees of Saturday Academy or their hosting internship organization (unless otherwise specified) and will not receive employment documentation or benefits as part of their participation in this program.

Stipends are disbursed in two parts. The first portion (half of the total stipend amount) is sent upon verification of internship start. The second portion (half of the total stipend amount) is sent upon verification of completion of all final deliverables and requirements of the program. Oftentimes, this falls in early September.

Students are expected to cash their stipend checks within 14 days of their receipt to avoid any delays in processing.