

High School

Apprenticeship Challenge Fall 2025

The program meets online on Thursdays from 4 to 6 PM and in-person on Saturdays from 9 AM to 2 PM. In-person lab sessions will be held at the **BioBuilder Learning Lab at 250 Western Avenue in the Allston/Brighton neighborhood**. There will be no programming the week of 11/24/25.

Week	Thursday, 4:00 - 6:00 PM (Online)	Saturday, 9 AM - 2 PM (Lab)
1		10/18/25* <i>Safety, Measuring in metric, Micropipetting</i>
2	10/23/25[#] <i>BioTech Careers, Keeping a lab notebook</i>	10/25/25 <i>Making stock solutions, Diluting solutions</i>
3	10/30/25[#] <i>Solution dilution, Dilution ratios</i>	11/1/25 <i>Multi-solute solution & pH; Growing Cells</i>
4	11/6/25[#] <i>Laboratory Math Review</i>	11/8/25 <i>Measuring cell concentration; Isolating DNA 1; Microcredential Testing I</i>
5	11/13/25[#] <i>DNA verification techniques, Autoclaves</i>	11/15/25 <i>Isolating DNA 2, Amplifying DNA</i>
6	11/20/25[#] <i>Gel electrophoresis, Microscopes</i>	11/22/25 <i>Visualizing DNA; Protein Induction</i>
THANKSGIVING - NO CLASS ON 11/27/25 and 11/29/25		
7	12/4/25[#] <i>Protein overview, Biomanufacturing, Biosafety cabinets</i>	12/6/25 <i>Enzyme activity measurement, Test preparation</i>
8	12/11/25[#] <i>Biomanufacturing, Professional development</i>	12/13/25 Microcredential Testing II

* Attendance on 10/18/25 (Saturday) is mandatory with no exceptions.

Every Thursday session will include a Career Conversation from industry professionals.

OVERVIEW

This 8-week program is designed to provide students with hands-on experience that will prepare them to work in a life science lab. During and at the end of the program, students will have the opportunity to test for micro-credentials in skills and knowledge that are essential in the biotechnology industry. No student is guaranteed a credential or a lab placement, but program staff will work to advance the personal and professional goals of everyone who participates in the program.

GOALS

We will focus on three aspects that lead to successful life science careers:

- **Content knowledge:** We will spend several hours each week working with synthetic living systems to gain familiarity with terms and details of science and bioengineering.
- **Laboratory techniques:** We will spend several hours each week in a research lab carrying out experiments to train hands and minds for benchwork.
- **Professional skills:** We will emphasize the importance of collaboration, written and oral communication, and responsibility in a work setting and introduce the concept of professional networking.

REQUIREMENTS

Students are expected to bring their best selves to our program. All must:

- Attend the first session on 10/18/2025. Attendance is mandatory.
- Come with an open mind
- Come with energy to engage with the challenges
- Work collegially and constructively
- Tell people who need to know if there is a problem

STIPEND

Students who complete the program will receive a \$500 stipend. Thursday absences will result in a \$50 deduction and Saturday absences will result in a \$100 deduction. Late arrivals of 15 minutes or more on Thursdays will result in a \$25 deduction and 30 minutes or more on Saturdays will result in a \$50 deduction. Anyone who misses more than two Thursday sessions, misses more than one Saturday session, or fails to notify instructors of absences or tardiness will not receive a stipend. Failure to pay attention and engage with the program will result in dismissal and loss of stipend.