Fred Hutch Career Launch Program

Lab Technician Pathway

Partners & Program Description

Fred Hutch, Shoreline Community College, Shoreline School District, and WA Alliance for Better Schools are partnering to offer an opportunity to fast-track into a career in Bio-Science as a Lab Tech at Fred Hutch while continuing an education towards a degree in Biotechnology

Our Team of Presenters

Dan Gallagher - CTE Director / Shoreline Public schools

Rachel Rawle - Instructor / Shoreline CC

Mary Grace Katusiime Ph.D - Program Manager / Fred Hutch

Jeanne Chowning Ph.D. - Associate VP, Science Education / Fred Hutch

James Thomas - Sr. Project Manager / WABS

Career Pathways

There are many different ways to attain a career and be competitive against others interviewing for the same job. Some of these pathways include:

- 4-Year degrees
- 2-Year degrees
- Certificates
- Apprenticeships
- *Career Launch Programs*

Lab Tech Career Launch Model

Step 1

Complete a paid internship at Fred Hutch during the summer between their junior and senior year of high school.

Step 2

Complete the Running Start course at Shoreline Community College while attending Senior year of HS.

Step 3

Complete a second paid internship at Fred Hutch during the summer after graduating from high school.

Step 4

Complete remaining coursework at Shoreline Community College to earn the Fred Hutch/Shoreline College Lab Tech Certificate

Step 5

With successful completion of the course work and satisfactory employment at Fred Hutch, you will then given a guaranteed interview as a highly competitive candidate and continue up the career ladder.

Program Eligibility

- Must be a current high school junior (grade 11)
- Must be interested in fast tracking with a Career Launch program that includes worksite learning in internships and earning a college certificate
- Must be interested in entering the workforce upon completion of the 2-Year program

Fred Hutch
Cancer Center

Fred Hutchinson Cancer Center

Fred Hutch: Who we are

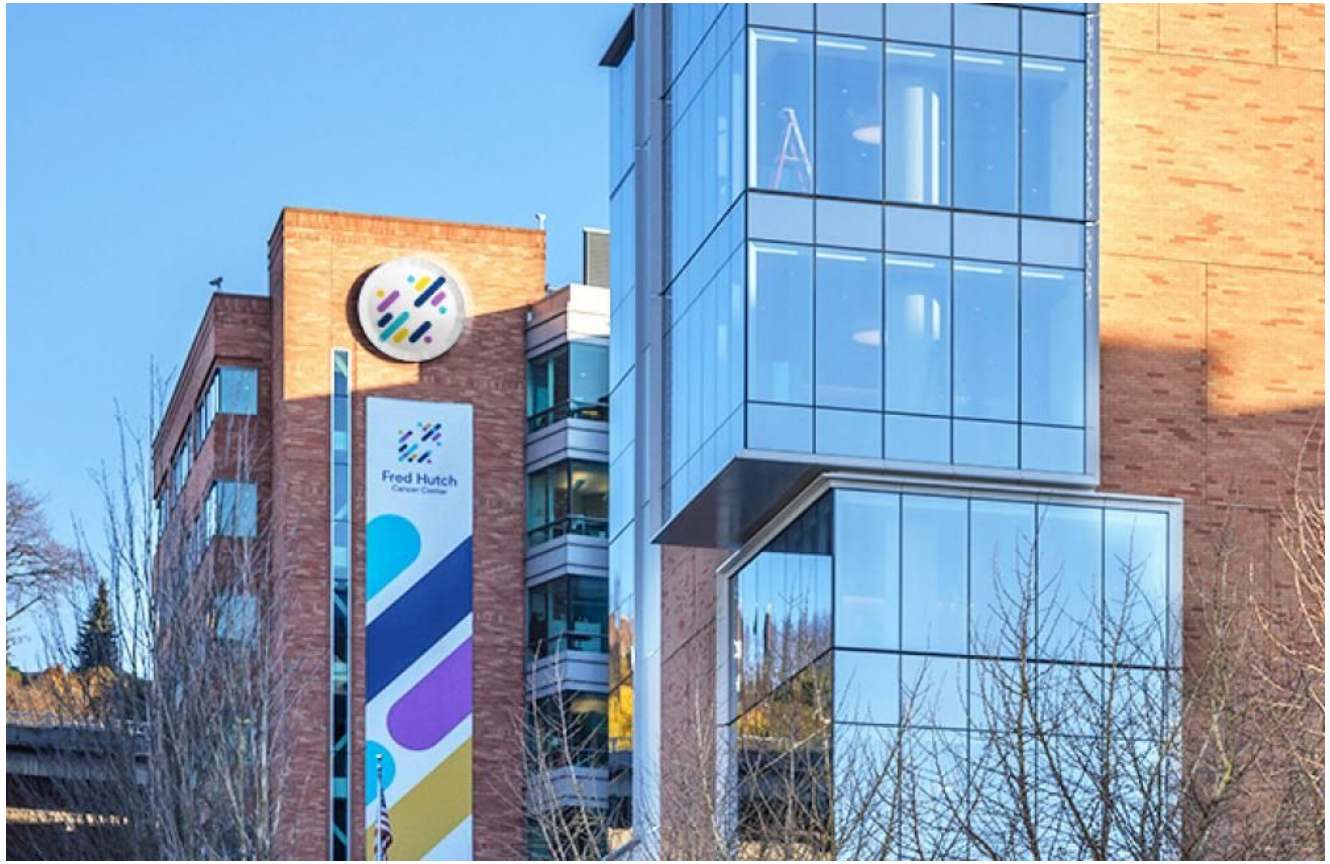
- The Fred Hutchinson Cancer Center (Fred Hutch) is one of the leading cancer research centers in the world and home to three Nobel laureates.

- Fred Hutch employs more than 5,700 people in a wide range of occupations.

Fred Hutch: Mission

- Our mission is to eliminate cancer and related diseases that cause human suffering and death. We conduct high quality research to improve the prevention and treatment of cancer and related diseases such as HIV/AIDS and COVID-19.

- Our research develops novel treatments and offers patients the opportunity to participate in potentially life saving clinical trials to treat their disease.



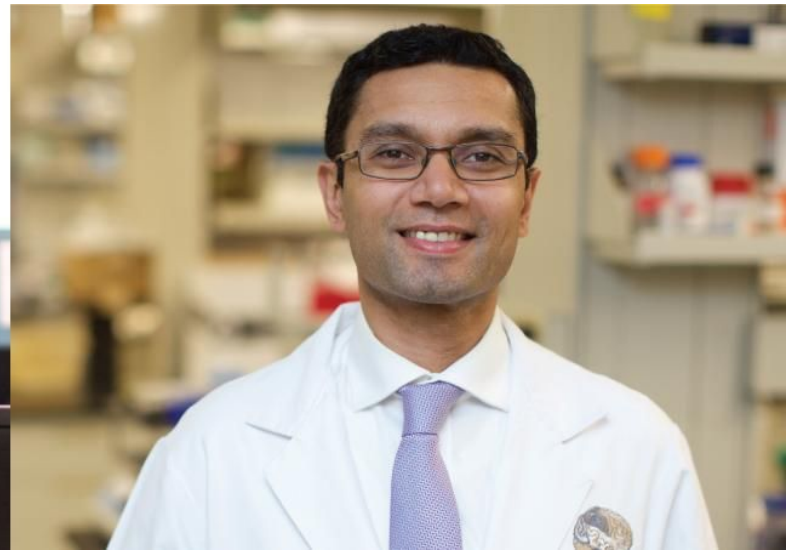
Fred Hutch: Science Education and Training

- We prepare the next generation to work at the cutting edge of science.
- This includes high school students, secondary school teachers, college and graduate students and postdoctoral fellows.
- Our programs aim to inspire diverse students through science education and authentic research opportunities.

Fred Hutch: Career Opportunities

- Several career types exist within Fred Hutch ranging from lab technicians, research administrators, medical writers to name a few..

- The center hosts career awareness and career pathway opportunities for students at high school, undergraduate and postgraduate levels.



Fred Hutch Paid Internship: First Day and Orientation

- Begin at 9AM on Wednesday, July 5th, 2023
- Introductions and meet the science education team
- Tour of Fred Hutch
- Meet your mentor and visit your lab
- Lunch
- Hands-on introductory lab training

Fred Hutch Paid Internship: Lab Duties and Training

- Assisting with experiments and set-up
- Logging and storing sample specimens
- Preparing lab solutions and reagents
- Cleaning and maintaining lab equipment
- Attending lab meetings
- Performing literature search
- Attending professional development sessions with other interns

Fred Hutch: Sample Lab Tech Career Progression

Lab Tech I	Lab Tech II	Research Tech I	Research Tech II
Eligible upon completion of the Fred Hutch/Shoreline Lab Tech Certificate ($19.19/hr to $25.95/hr)	Eligible after 2 years lab experience ($19.56/hr to $27.84/hr)	Eligible after 3 years lab experience ($21.56/hr to $30.69/hr)	Eligible after 4 years lab experience ($24.96/hr to $35.53/hr)

Fred Hutch: Paid Internship Summer#1 2023 Timeline

Paid 6 weeks internship at Fred Hutch: July 5th - August 16th
40 hours per week; $20/hr*

* This amount is pre-tax. Tax will not be automatically taken from your paycheck. You will need to pay taxes out of funds received.

Fred Hutch/Shoreline Community College Lab Technician Certificate

Program Overview

Shoreline
COMMUNITY COLLEGE
Engage. Achieve.

What is the SCC learning environment like?

Brand new BioScience facilities with dedicated Biomanufacturing lab (opening fall 2023)
Dedicated teaching labs with facilities that include:

- Molecular Biology / Immunology lab
- Tissue culture lab
- High Performance Liquid Chromatography (HPLC)
- Flow Cytometry
- Biomanufacturing lab with Bioreactor
- Microbiology

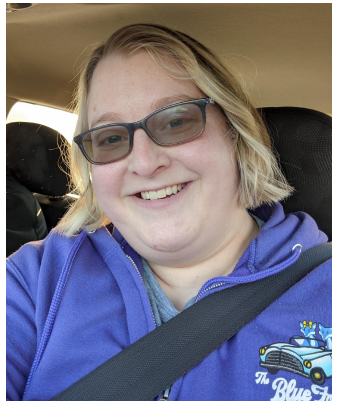
Your SCC Support

Biotech Group

Maribel Tirado
Career Navigator

Diana Ensenat
Instructional Lab Technician

Orlando de Lange
Instructor



Kristine Petesch
Instructor

Rachel Rawle
Instructor

Jan Chalupny
Instructor

Campus Resources

- Running Start Office
- Writing Center
- Tutoring Services
- Student Accessibility Services
- Funding & Financial Aid
- Career Coaching
- Multicultural Center
- Gender Equity Center
- Counseling Center

Specific Course Sequence 2023-2024

Quarter	Course Number	Course Title	Credits
<u>High School Junior Year</u>			
Summer 2023	Fred Hutch Internship 1		
<u>High School Senior Year</u>			
Fall 2023	BIOL 111	Principles of Biomanufacturing I	3 (Running Start)
Winter 2024	BIOL 112	Principles of Biomanufacturing II	3 (Running Start)
Spring 2024	BIOL 113	Principles of Biomanufacturing III	3 (Running Start)
	The Principles of Biomanufacturing courses are shorter and scheduled in the afternoons/early evenings so that students do not need to reduce their high school course schedule to participate.		
Summer 2024	Fred Hutch Internship 2 *(Students who did not complete high school chemistry will also enroll in CHEM& 121 for 5 credits)*		

Specific Course Sequence 2024-2025

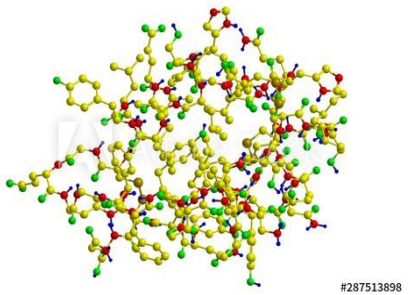
Quarter	Course		Credits
Post High School Year			
Fall 2024	Cellular Biology Statistics*	Media Prep* College Success in STEM	14
Winter 2025	Microbiology + Lab Molecular biology Lab	Computer Applications	13
Spring 2025	Tissue Culture Recombinant DNA Techniques	Media Prep II Business Communications	15
Summer 2025	Option to take two of: Bioinformatics Lab Techniques in Medical Diagnostics	 Flow Cytometry Biotechnology Techniques	4

**Options exist for these requirements to be met through high school coursework*

What will you learn?

Senior Year – Principles of Biomanufacturing

What is biotechnology?
What is biomanufacturing?



How to genetically engineer bacteria

How to work in a cleanroom

How to assemble a bioreactor

What will you learn?

Methods

DNA extraction, purification and analysis

PCR

Molecular cloning

Protein expression, purification and analysis

Theory

DNA replication

Gene expression

Protein biochemistry

Recombinant DNA techniques

Microbiology

Career Skills

Communicating technical content

Working collaboratively

Documenting effectively

Interpreting and using data

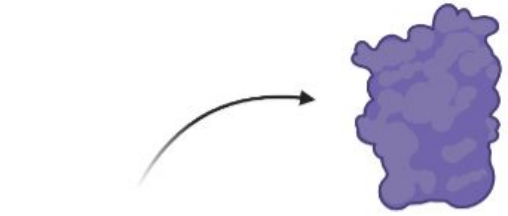
Using arithmetic on the fly

Applying for jobs - From 1st approach to interviews

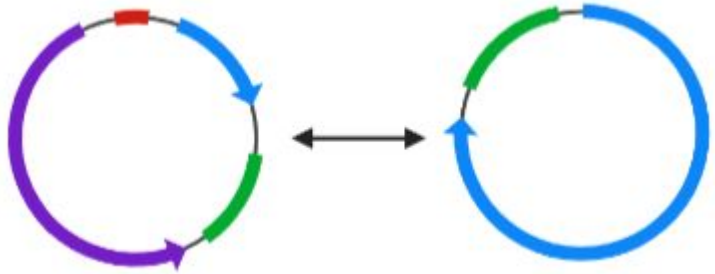
What will you learn?

Examples of problems you'll learn to solve

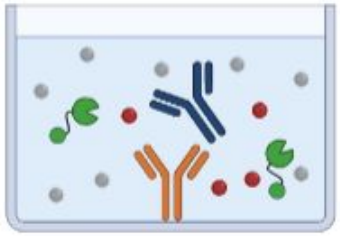
How to use DNA to ID a fish species from just a tiny piece of meat



How to turn bacteria into protein factories



How to mix and match pieces of DNA with precision



How to harness antibodies to screen patient samples for diagnostically relevant molecules

% Completion for Degrees & Program Prerequisites @ SCC

Degree Earned	Maximum Percentage of the Degree Met by Completing the Fred Hutch Lab Tech
AA-ADT (General Transfer)	38%
AST-1 (Science Track 1)	28%
AST-2 (Science Track 2)	17%

Programs	Maximum Percentage of the Pre-requisites Met by Completing the Fred Hutch Lab Tech
Biotechnology Lab Specialist Certificate of Completion	86% of the pre-requisites 45% of the program requirements
Biotechnology Lab Specialist, AAA-S	46%
Dental Hygiene, AAA-S	36%
Nursing, AAS-T	44%
Medical Laboratory Technology, AAA-S	59%

Identifying Counselor Or Teacher For Letter Of Recommendation

You will be required to have a teacher or counselor submit a Letter of Recommendation which speaks to your qualifications and character as a potential candidate for this program.

In your application, you will provide the name and email address of the teacher or counselor who be submitting this letter as a reference on your behalf.

Upon completion of your application, the teacher or counselor identified will be contacted by email with information on how and where to submit their letter.

Important: Discuss with the person you wish to write your letter before submitting their name as part of your application.

Summary of timelines

APPLICATION TIMELINE	
April 28	Application due
May 12	Letter of recommendation due
May 26	Successful applicants notified
June 2	Registration for Biomanufacturing Running Start courses completed

PROGRAM TIMELINE	
July 5 - August 15	Summer Internship #1
12th grade year	Biomanufacturing Running Start courses plus 12th grade high school schedule
Summer 2024	Summer Internship #2
College year	SCC coursework
Spring 2025	**Certificate complete– Begin your career!**

APPLY HERE:
https://www.fredhutch.org/en/about/education-outreach/hutch-advance/lab-tech-program.html
ASK QUESTIONS AND RECEIVE HELP WITH YOUR APPLICATION:
https://forms.gle/uwqZSJEt9DCYpovD6

Support Staff and Contact List

Mary Grace Katusiime, PhD

Science Education Program Manager

Fred Hutchinson Cancer Center

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Dan Gallagher

Role: CTE Director

Shoreline School District

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Mirabel Tirado

Career/Student Navigator

Shoreline Community College

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James Thomas

Sr. Project Manager

Washington Alliance for Better Schools

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Questions