

# UCEAP Biological Lab Research Programs

(no foreign language required)

## Spring or year, Tohoku University, Sendai, Japan

<https://uceap.universityofcalifornia.edu/programs/engineering-and-science>

COURSES AND CREDIT

### REQUIREMENTS WHILE ABROAD

Take a full-time course of study: Five courses for a total of 21 quarter/14 semester UC units. NOTE: few bio-related courses available. <https://www.insc.tohoku.ac.jp/english/exchange/jype/2-course-description-2019-2020/>,

Take a lab research course for 8 quarter UC units each semester. Taking this course for a letter grade is recommended.

You can take up to a third of your units pass/no pass.

Taking more than 27 units is not recommended.

### CURRENT PROGRAM COURSES

This program has a required lab research component.

During the fall semester, you will spend approximately 15 to 20 hours per week in lab research (for 8 UC quarter units).

During the spring semester, you can either continue your lab research from the fall at 15 to 20 hours per week or you may participate in the intensive lab research for approximately 30 hours per week for (16 UC quarter units). The intensive lab option is only available during the spring and requires the approval of the lab supervisor.

## STEM Research Osaka University, Japan, summer (competitive), fall or spring

<https://uceap.universityofcalifornia.edu/programs/stem-research-osaka>

### REQUIREMENTS WHILE ABROAD

- Fall and spring: Lab research for a total of 21 quarter/14 semester UC units.
- Summer: Lab research for a total of 12 quarter/8 semester UC units.

### CURRENT PROGRAM COURSES

During the fall or spring semester you may take one or two courses in addition to the lab research. Some students choose to take a beginning or intermediate Japanese language course. The university will finalize course options for you once the term begins.

Additional coursework for academic credit is not available during the summer program.

## STEM Research University of Tokyo, summer (Very competitive)

<https://uceap.universityofcalifornia.edu/programs/stem-research-tokyo>

### REQUIREMENTS WHILE ABROAD

- One lab research course for 7.5 quarter/5 semester UC units of lab research required
- You must take the course pass/no pass

### CURRENT PROGRAM COURSES

You can take a lab research course, focusing on a STEM topic such as:

- Biological sciences
- Chemistry
- Computer science
- Earth sciences
- Engineering
- Mathematics
- Physics

## **Undergraduate Research, Chinese University of Hong Kong, summer**

<https://uceap.universityofcalifornia.edu/programs/undergraduate-research>

### **REQUIREMENTS WHILE ABROAD**

- Take a full-time course of study: One research course for a total of 9 quarter/6 semester UC units.
- Letter grade required
- Additional credit is not available.

### **CURRENT PROGRAM COURSES**

Projects vary each year and are typically announced in December or January for the following summer.

## **Summer Research, National Taiwan University**

<https://uceap.universityofcalifornia.edu/programs/research-in-taipei/academics>

### **REQUIREMENTS WHILE ABROAD**

- Two courses for a total of 9 quarter/6 semester UC units.
- Take the Lab Research course (6 quarter/4 semester UC units) for a letter grade only. Take the Exploring Taiwan course (3 quarter/2 semester UC units) for a letter grade or pass/no pass.
- Attendance is mandatory and affects the final grade.

### **CURRENT PROGRAM COURSES**

There are two required courses in this program:

1. Lab Research: Lab time is generally 30 or more hours per week, including weekly team meetings. The time commitment varies depending on the project and your assigned lab team.
2. Exploring Taiwan: Introduction to the Culture of Taiwan: The Exploring Taiwan course offers a series of lectures, cultural activities, and excursions to look at Taiwan's geography, society, and culture.

## **Glasgow Summer Science and Engineering, Life Science Research and Pre-Med/Research Tracks**

<https://uceap.universityofcalifornia.edu/programs/glasgow-science-and-engineering>

Two courses for a total of 12 quarter/8 semester UC units.

### **Pre-Med/Research Track:**

Take this track if you're intending to apply for medical school, dental school, or other health-related schools.

The track is divided into two, four-week sessions: Session 1: Functional Anatomy, and Session 2: Life Sciences Research. You'll enroll in one course during each session. All courses are upper division.

Functional Anatomy:

- Introduces and demonstrates the use of medical terminology.
- Presents the principles of radiology and the identification of structures radiologically.
- Develops an understanding of gross anatomy and histology.
- Demonstrates clinical application of anatomical knowledge.
- Helps develop dissection techniques.
- Course assessment is modeled after USMLE-style questions.

### **Life Sciences Research Track:**

The life sciences research track can be combined with the Pre-Med/Research track or become a 6-week program focused entirely on research. All research projects offer substantial opportunity for independent investigation. The available topics are:

- Mesophiles and thermophiles in the urban environment.
- Bacteria in fresh water: a historical record of past pollution.
- Using *Caenorhabditis elegans* as a model organism for genetic screens.
- Investigating the reliability of *Daphnia* as a model to study the autonomic control of heart rate.