



EDUCATIONAL ASSISTANT

ABOUT THE ORGANIZATION:

Through a bold plan conceived in concert with the community, AltaSea is making a lasting mark on the future of Los Angeles and the planet through a unique public private ocean institute that joins together the best and brightest in exploration, science, business and education. The emphasis on creating public-private collaborations sets the organization apart. It is from these intersections that innovation is born, and from innovation comes groundbreaking impact.

DESCRIPTION:

The intern would support the education department, working directly under the supervision of the Marine Energy and Exploration instructor. The intern must be self-motivated and work independently to get projects completed.

Major responsibilities include:

- Assisting with on-site field trips
 - Setting up robots and leading tours
- Organizing educational materials
- Organize and create curriculum activities
- Working on an energy demonstration system and installing hydroelectric and wind turbines
- Creating educational kits and student materials
- Maintaining the underwater robots and performing some troubleshooting
- Maintain and monitor tanks for aquaculture and energy systems
- Serve as a judge for student project pitches

DESIRED EXPERIENCE:

The ideal candidate would have an interest in pursuing an educational career.

- Basic knowledge of electronics
- Working with students is a plus!
- Some soldering skills are also a plus!

WORKING CONDITIONS:

- Occasional lifting up to 25 pounds
- Some days include extensive walking across the campus.
- Occasionally working on barge outside, including walking up and down barge gangway.

SCHEDULE:

- On-site
 - Flexibility Mondays, Wednesday, and Friday during business hours, 9 am-5 pm
 - Required onsite for field trip days (Tuesdays, Thursdays: 9a-1p)



LAB INTERN

sperra

ABOUT THE COMPANY:

Sperra Technologies is a climate tech start-up dedicated to making renewable energy cheaper and more available using automated concrete manufacturing technologies. Join us and help transition the world to low-cost renewable energy from wind, waves, and solar!

DESCRIPTION:

As a Lab Intern, you will participate in material testing and worship builds.

The ideal candidate will have a passion or interest in filming and editing workshop instructional videos and content.

Daily responsibilities include:

- General concrete lab/workshop tasks and cleaning.
- Participate in Marketing content.
- Contribute to writing SOPs (Standard Operating Procedures).

DESIRED EXPERIENCE:

- Engineering or workshop trades discipline is preferred
 - Civil, construction materials, mechatronics, mechanical, robotics
- Desirable:
 - Experience in filming and editing.

WORKING CONDITIONS:

- Expected to be able to lift 50lb cement bags when needed
- Steel toe shoes work in lab (available in lab)
- Clothes that you don't mind getting dirty
- Walking and standing for some extended periods of time

SCHEDULE:

- Flexible during business hours, 9:00 AM - 5:00 PM Monday-Friday
- Flexibility for onsite tasks
- If no lab work is required, hybrid (computer-based) tasks can be assigned.



PILOT OPERATIONS SUPPORT

UCLA
Equatic

DESCRIPTION:

Interns at the UCLA/Equatic pilot will have the unique opportunity to gain hands-on experience in cutting-edge electrochemical carbon dioxide removal technologies.

Interns will develop skills in: Operating and troubleshooting advanced electrochemical systems | Understanding and applying process optimization techniques in a real-world setting | Data collection, analysis, and interpretation to guide process improvements | Collaborative problem-solving in multidisciplinary team

Daily Responsibilities:

Monitor & document performance of electrolyzer systems and related process equipment | Assist in routine maintenance and troubleshooting of mechanical & chemical systems | Conduct chemical and physical tests to support process optimization and scaling | Collaborate with engineers & scientists to refine process parameters for enhanced efficiency

End of Program Goals:

Successfully support deployment and optimization of commercial-scale electrolyzer for testing and validation | Contribute to a project report detailing findings, process improvements, and recommendations for future scaling | Present a capstone project or intern-led improvement initiative demonstrating a deep understanding of the technology and its challenges

DESIRED EXPERIENCE:

Current enrollment in an accredited university program in Mechanical Engineering, Process Engineering, Chemical Engineering, or Chemistry

- Basic familiarity with laboratory practices and safety protocols
- Proficient in MS Office Suite, especially Excel for data analysis
- Prior experience in a research lab or industrial setting is advantageous but not required.

WORKING CONDITIONS:

- Must be comfortable working on a barge
- Must wear closed-toe shoes

SCHEDULE:

- Flexibility with student's schedule between business hours, 7a-5p
 - Typically 10-20 hours per week



RESEARCH ASSISTANT (AQUACULTURE)



ABOUT THE ORGANIZATION:

Kelp Ark is a nonprofit organization dedicated to the conservation of seaweed. Our mission is to preserve the biodiversity of seaweed (or macroalgae) by establishing and maintaining an ex-situ seed bank of seaweed species. We further our mission by developing resources and technology to serve as a seaweed hub and resource base for farmers, restorationists, and scientists to better serve our oceans. We are also dedicated to serving our community via ocean and aquaculture education and ocean food literacy prioritizing outreach to underserved populations.

DESCRIPTION:

The intern will support the study of microbiome and alternative nutrient effects on kelp gametophytes' growth and sexual development. This study will test how we can enhance kelps' natural microbiome based on specific nutrient needs.

The intern will assist researchers in laboratory tasks such as: media changes, microscope imaging, sample preparation, note-taking, literature research, and data analysis.

At the end of the internship, the intern will be able to use tools for kelp research (such as microscopy) and microbial techniques, and will be able to understand the life cycles of kelps.

DESIRED EXPERIENCE:

- Must have completed at least General Biology I & II, and Chemistry I.
 - Preferred to have Microbiology knowledge
- Experience in Aquaculture, Phycology, or Marine Biology
- Base level usage of Microsoft Office Suite

WORKING CONDITIONS:

- Will be standing or sitting for extended periods
- Increased screen time
- Microscopy

Required uniform:

- Lab coat and long pants; Closed-toe shoes
- Location not suitable for persons with mobility issues due to space-constraint laboratory

SCHEDULE:

Flexibility during business hours (9:00 AM – 5:00 PM, Monday – Friday)

- Fixed schedule will be set upon mutual agreement with direct supervisor.

Location: AltaSea campus (Berth 58)



RESEARCH ASSISTANT (CRYOPRESERVATION)



ABOUT THE ORGANIZATION:

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DESCRIPTION:

The intern will support the study of cryopreservation techniques for kelp gametophytes. This is an emerging field that requires experiments that demonstrate its feasibility.

The intern is expected to come in to the lab for work on gametophytes, and conduct experiments for cryopreservation protocols.

By the end of the program, the intern will have gained skills with using tools for kelp research, cryopreservation techniques, biochemistry, and an understanding of life cycle of kelps.

DESIRED EXPERIENCE:

- Must have completed at least General Biology I & II, and Chemistry I & II
- Preferred field of study: Biology
- Base level usage of Microsoft Office Suite software

WORKING CONDITIONS:

- Will be standing or sitting for extended periods
- Increased screen time
- Microscopy

Required uniform:

- Lab coat and long pants; Closed-toe shoes
- Location not suitable for persons with mobility issues due to space-constraint laboratory

SCHEDULE:

Flexibility during business hours (9:00 AM - 5:00 PM, Monday - Friday)

- Fixed schedule will be set upon mutual agreement with direct supervisor.

Location: **This position will require the intern to travel between two sites-**

- Onsite at AltaSea (Berth 58)
- Offsite at LA Biospace (1927 Paseo Rancho Castilla, Los Angeles, CA 90032)



RESEARCH ASSISTANT (MOLECULAR BIOLOGY)



ABOUT THE ORGANIZATION:

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DESCRIPTION:

The intern will support the development of a project to study transcriptome of strawberries subjected to kelp bio stimulants. This study project is to test the efficacy of them, and showcase how this product can enhance strawberry cultivation.

The intern will assist researchers in laboratory tasks, like DNA extraction, sample preparation, note-taking, literature research, and data analysis.

By the end of the program, the intern will have gained a skillset useful for Molecular lab work, and an introduction to -omics kind of framework.

DESIRED EXPERIENCE:

- Must have completed at least General Biology I & II
 - Preferred to have Microbiology knowledge
- Base level usage of Microsoft Office Suite

WORKING CONDITIONS:

General laboratory space

- Will be standing or sitting for extended periods
- Increased screen time

Required uniform:

- Lab coat and long pants; Closed-toe shoes

SCHEDULE:

Flexibility during business hours (9:00 AM - 5:00 PM, Monday - Friday)

- Fixed schedule will be set upon mutual agreement with direct supervisor.

Location: This position is **not at AltaSea**.

- All work will be done at the **LA Biospace** (1927 Paseo Rancho Castilla, Los Angeles, CA 90032)



UPCYCLING INTERN



ABOUT THE COMPANY:

We are building something for the future at ECOSS! At the ECOSS (Educational Center of Sustainability in Surf) we will not only be upcycling surfboard production waste, but we will have the ability to take ocean-bound plastic and turn it into new and useful products and educate about it in the process.

DESCRIPTION:

Internship will focus on assisting Ryan with repurposing “recyclable” products, with further work being dependent on experience. Intern will oversee plastic donations on Thursdays including communication and greetings. Responsibilities will include:

- Organizing plastic
- Organizing and cleaning the workstation
- Running machinery (plastic shredder)
- Emailing potential partners
- Possible moderation of social media page

DESIRED EXPERIENCE:

- No prior experience necessary.
- Do not have to be a surfer.
- Preferred background:
 - Someone passionate about the environment and sustainable practices.

WORKING CONDITIONS:

- Some heavy lifting will be required.
- If administrative or social media work assigned, there will be increased screen time.
- No set uniform, but wear clothes you don't mind getting dirty.

SCHEDULE:

- Shifts are 3 days a week between 9:00 am - 5:00 pm Monday through Friday.
- Plastic Donation Time: Thursdays 10:00 am - 12:00 pm