Lyon Arboretum Internships 2022

Aloha! This summer, Lyon Arboretum will host two internship programs: the Lyon Arboretum Summer Internship Program and the Trail Building Internship Program.

Because we have multiple internship programs, it is important to carefully read this document to be sure you follow the application instructions for the correct internship. The responsibilities and experience offered by each internship position vary, so be doubly sure you apply to the program that interests you!

You can view the most up-to-date information about this opportunity online:
https://manoa.hawaii.edu/lyon/2022/02/01/2022-summer-internships/

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Lyon Arboretum Summer Internship Program: Overview

This internship is made possible using funding from the Friends of Lyon Arboretum.

For the 2022 Summer Internship Program at Lyon Arboretum, co-sponsored by the Friends of Lyon Arboretum (FLA), interns will be provided with a hybrid experience across five participating departments.

Interns will each have an assigned host department and will also participate in group activities on a weekly basis. As such, interns will assist in a variety of tasks as detailed by their respective departments and gain valuable in-depth experience there. During rotations, they will also develop an appreciation for the other units at Lyon and receive an insight into what their colleagues are doing during the internship timeframe.

Interns will work independently within their host department on Mondays, Tuesdays, and Wednesdays. Thursdays will be group activity days. On group activity days, all interns will do a group activity that benefits the day’s host department. Some group activity days will be replaced with field trips for the interns to visit other organizations and sites and learn behind the scenes.

**Schedule:** June 7, 2022 through August 12, 2022. (4 days a week, Monday-Thursday; last week of the internship will be a full week; state and federal holidays observed.) Workday will start around 8:00 am.

**Award:** $3,125

Available Positions

Positions are available with the following departments for the 2022 FLA Summer Internship Program: **Education Department, Horticulture Department, Grounds and Collections Department**, and **Micropropagation Lab**. Interns will also spend time with the Seed Conservation Lab.

Harold L. Lyon Arboretum
University of Hawai‘i at Mānoa
Participants of the Lyon Summer Intern program will experience a range of activities that highlight an education program in a botanical garden setting.

Responsibilities of the Lyon Education Department include running the K-12 school tours program, coordinating community classes, training volunteers for guided tours as well as leading tours for visitors. The Education Department also develops place-based activities for school groups and nature camps, participates in and develops materials for outreach events, recruits volunteers for the other departments and Arboretum events, and maintains the Children’s Garden. Maintenance of the Arboretum website and social media accounts is also a responsibility of the Education Department. The Education Intern is expected to help with these duties during their tenure at the Arboretum.

Interns for the Education Department must complete a project that focuses on a specific area of interest within the education department responsibilities.

Examples of possible projects:

- One project may focus on curriculum for the school group tours by designing a standards-based activity for the school tours that features resources available at the Arboretum.
- The intern may also choose to do a garden project by designing and installing new garden features that will be used as a resource for education activities in the Children’s Garden.
- Interpreting the Children’s Garden plant collections and cultural resources by researching and writing copy for displays, signage, events, and brochures can also be a designated project.

Other projects that are relevant to the missions of the Arboretum and the Education Department can be discussed.
Horticulture Department

The Horticulture Intern will gain
- Experience in the maintenance and production of tropical plants in a professional greenhouse setting.
- Hands-on experience with plant propagation, fertilization, and repotting.
- An understanding of plant identification, propagation techniques, potting media types, planting strategies, and marketing for sales.

The Horticulture Department, in turn, will gain
- Assistance in caring for the diverse living collections in our four greenhouses at Lyon, in addition to maintaining the facilities and growing spaces.
- Extra help to take on large projects such as greenhouse infrastructure repairs, annual plant collection inventories, and sale production and preparation.

The intern will
- Help to care for living collections (watering, fertilizing, re-potting, pest control, etc.)
- Collect and document plant material for greenhouse living collections
- Propagate plant materials through seed germination and vegetative cuttings
- Assist in maintenance of facilities (general cleaning, weeding, and minor repairs as needed)
- Engage in site preparations (weeding, clearing, etc.) and planting of material on the grounds of Lyon
- The intern’s work will be evaluated in the following ways
  - Project goals will be determined and set by the intern with guidance by the Horticulture Manager
  - The intern will be evaluated based on performance of day-to-day tasks and execution of a cumulative horticulture-related project approved by the Horticulture manager
Progress over the course of the internship, and project findings, will be documented and presented by the intern at an end of internship meeting with Lyon staff.

Training or other benefits with the intern will receive

- Skills in identification of ornamental plants, Polynesian crops, native plants, and weedy or invasive plant species
- Knowledge of greenhouse practices for the production and maintenance of tropical plants including fertilization, pest control, propagation techniques, repotting, and planting
- An understanding of potting media types, their properties, and uses for different types of plants

Impact the internship will have on the Arboretum as a whole

With a small but dedicated staff at Lyon, and a huge collection of plants to care for, any extra man (or woman) power is a benefit to the Arboretum. With extra help from interns over the summer, larger projects can be accomplished more efficiently, staff have more time to focus on administrative duties, and overall productivity at Lyon is amplified. After completing the program, interns then serve as ambassadors of Lyon, sharing their experiences at Lyon with the broader community.
Goals for the internship

With any internship, it is our hopes that the experience is mutually beneficial to both the intern and the host site. We hope to provide an experience that will give our intern a well-rounded introduction to the role of arboreta in conservation, best practices for the maintenance and inventory of native and exotic species. In return, we will establish a connection with the intern whose experience here will last a lifetime as well as some well needed assistance in our on-going field work in maintaining the living collection.

The Grounds & Collection Intern will learn the skills required for general maintenance/monitoring of this collection to include plant identification, invasive species removal, pruning techniques, accession inventory/health monitoring, out-plant site preparation and subsequent outplanting. Interns will also focus on trail-building, interpretation of wayside plants and learn how to document accessions using herbarium vouchers and properly store information collected during an inventory.

During the individual’s time in this program they will be working with professionals who will instruct the intern not only in the aforementioned skill sets, but in safety and best practices as well.

The intern’s work will be evaluated in the following ways

1.) Plant ID practical exam
2.) Weekly Field notebook check
3.) Project and presentation

In addition to the above, the intern will also receive the following training and benefits

1.) Introduction to plant systematics and major plant family identification
2.) Invasive species identification and techniques for invasive species management/eradication
3.) Proper tool maintenance, use, and safety
4.) Trail building techniques and best practices
5.) How to keep a field notebook and make herbarium vouchers

Impact the internship will have on the Arboretum as a whole

The impacts of these internships are the relationships or pilina that are built between Lyon staff and interns. Over the course of time, many of these interns, who we mentor, often become positive contributors to the protection and conservation of Hawaii’s natural resources.
Hawaiian Rare Plant Program: Micropropagation Lab

Goals for this internship

Through our participation, the Hawaiian Rare Plant Program (HRPP) Micropropagation Lab hopes to gain much-needed assistance in maintaining its large germplasm storage of endangered native Hawaiian taxa. We hope that the participant will gain hands-on laboratory experience that includes maintaining the in vitro living plant collections and associated tasks such as: 1) media preparation, 2) sterile techniques, and 3) general laboratory maintenance.

Both the participant and our organization will ultimately help to complete our mission and conservation goal of conserving those species that are on the precipice of becoming extinct without some kind of human intervention.

Activities of the intern

Work activities to be conducted at the micropropagation laboratory include:

- Plant maintenance of the living plant germplasm stored as in vitro cultures with minimal supervision.
- Preparation of newly created and various existing plant growth nutrient media formulations and chemical stock solutions specifically used to grow plants as in vitro cultures within the laboratory.

Other activities include: plant micropropagation, lab maintenance and cleaning, washing of labware, and possibly some computer and greenhouse work.

How the intern’s work be evaluated

Intern activities will primarily be performed in the HRPP micropropagation lab, and due to the technicality of the tasks to be completed, constant supervision, monitoring and evaluation by lab staff will be conducted. The intern will be expected to present a final
presentation to the Lyon staff. Training or other benefits the intern will receive We will actively mentor the participant by teaching them the skills and protocols necessary to work with plants in the micropropagation laboratory setting and provide an insight into the role of micropropagation (and HRPP as a whole) in the conservation of native Hawaiian endangered species.

We are currently developing the protocols necessary to provide cryopreservation storage for these endangered plants and the participant will be able to participate and learn about the crucial role of this new technology in conserving plant material in the laboratory setting. There may also be opportunities to work in the HRPP’s Seed Lab and Greenhouse and to participate in the outplanting of propagules in the field with the State of Hawai‘i DLNR-DOFAW’s Plant Extinction Prevention program collaborators.

*Impact for the Arboretum*

This position will assist the Lyon Arboretum Hawaiian Rare Plant Program and Hawai‘i’s conservation community in its ongoing efforts to bring interest and awareness to the role of ex situ conservation in the ongoing efforts to capture, stabilize and restore the critically endangered and threatened native plants of Hawai‘i. It is imperative to continue to conserve and maintain our natural environment and resources in order to keep Hawai‘i’s unique beauty preserved for the enjoyment of future generations.
How to apply (instructions for Lyon Arboretum Summer Internship)

To apply, fill out our Google Form: [https://forms.gle/GUk2esAtyUhpGML9](https://forms.gle/GUk2esAtyUhpGML9)

You will need to indicate your top 3 choices of department and attach the following documents:

1. Cover letter
2. Resume, including 3 references
3. Transcript (unofficial is fine)

Questions may be emailed to Ms. Raedelle Van Fossen, Education Manager, at raedelle@hawaii.edu.

Be sure to use proper, professional formatting on your cover letter and resume. Failure to do so will reflect poorly on the applicant. See the last section (“Additional resources for applicants”) for tips and guides for creating your cover letter and resume.

**Deadline: March 2, 2022**

- Applicants must be at least 18 years of age on the first day of the program.
- High school graduates, current and recent college students, and other individuals interested in gaining experience working in conservation are all welcome to apply.

We look forward to receiving your application!

**Questions**

If you have questions, please call Raedelle Van Fossen at (808) 988-0461 or email at raedelle@hawaii.edu.
Additional resources for applicants

Need help getting started with your resume and cover letter? There are many guides and resources available online, including several by the Mānoa Career Center.

We strongly recommend that applicants new to the workforce refer to some sort of Cover Letter Guide. Resume-building resources are also available. This document (also included in the preceding link) includes resume format examples.

Here are two guides for listing your professional references too, one from the Balance Careers and one from Indeed.

Mahalo for your interest in the Lyon Arboretum Summer Internship program!