National Tropical Botanical Garden Fall Internship Program

General Overview*

Weeks 1-8 South Shore Gardens**

Week 1: Introduction to NTBG
- History of the National Tropical Botanical Garden
- Introduction to administrative support departments
- Guided tours of Allerton and McBryde Gardens
- Introduction to South Shore Visitor Program

Week 2 and 3: Science and Conservation
- Tour: Botanical Research Center and Rare Book Room
- Lecture: Hawaiian plant habitats and their species
- Lecture and garden walk: Plant taxonomy and identification
- Workshop: Introduction to Botanical terminology and using a dichotomous key
- Workshop: Collecting, pressing, data entry
- Hike: Botanizing along Pihea and Alakai Swamp trails
- Lecture and lab: Introduction to seed conservation
- Workshop: Seed processing
- Workshop: GIS data collection, data analysis and cartography
- Lecture and lab: Plant anatomy and physiology
- Walk: Exploring Makauwahi Cave

Week 4 and 5: Living Collections
- Native Ecosystem Field Work
- Conservation Nursery work
- Rare plant propagation techniques including seeds, cuttings, air layers and grafting
- Living Collections, database, garden mapping etc

Week 6 and 7: South Shore Horticulture
- Power Equipment Use / Pesticides/ General Safety in Horticulture
- Intro to Hort. (basic botany, etc.) --morning, Planting veggies/ herbaceous perennials--afternoon
- Intro to Arboriculture, (class and hands-on pruning --2 days
- Weeds and Invasive Plants (hands on invasive species removal) --2 days
- Soils and Fertilizers (mulching and feeding our collection) --2 days
Week 8: Breadfruit Institute
• Introduction to BFI
• Agroforestry Demo overview
• Harvest and Data Collection
• Practices in maintaining soil biodiversity
• IPM (Integrated Pest Management)
• Selective Pruning, Trimming, and Culling in an Agroforest
• Harvesting of Plant Material for propagation
• Irrigation Management
• Planting

Week 9 and 10: Kahanu Garden (Hana, Maui)
• Understanding the significance of Pi’ilanihale Heiau
• Revitalization of the Kahanu Garden "Canoe Garden"
• Learning principles of organic farming at Mahele Farm.
• Planting endemic rare and endangered species
• Maintenance of the Breadfruit collection
• Participation in Aloha Week

Week 11, 12 and 13: Limahuli Garden and Preserve (Haena, Kauai)
• Aloha `Āina - Introduction to a Hawaiian world view and sense of place
• Biocultural conservation
• Social-ecological systems and resilience
• Traditional Ecological Knowledge (TEK)
• Traditional Resource Management (TRM)
• The role of botanic gardens in conservation
• Conservation horticulture
• Landscaping with native plants
• Subsistence agriculture
• Community outreach and engagement
• Approaches to forest restoration
• Approaches to riparian restoration

Program wrap up at South Shore Gardens
• Presentations/Graduation

*Note that this outline is intended as a general overview and that the actual program sessions and materials may change prior to, or during, the program.
The program includes a group project that will be completed at each Garden location (3 in total) with dedicated time during each week to work on the project and a dedicated staff member as your advisor. These projects will be presented at program completion/graduation.