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: 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 3 and 4: 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 5 and 6: 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 7 and 8: South Shore Horticulture**
• Power Equipment Use / Pesticides/ General Safety in Horticulture
• Intro to Hort. (basic botany, etc.)
• Intro to Arboriculture
• Weeds and Invasive Plants
• Soils and Fertilizers

**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.